Project Charter
Team Wakati
4.29.14
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1 INTRODUCTION
This Project Charter establishes an agreement between Team Wakati and Code4Sac to develop software to help ease access to public services. This document addresses the project scope, plans for project management, and project conditions and limitations.

1.1 Purpose. The Project Charter describes the project, establishes expectations between stakeholders, and describes processes for managing the project. The Project Charter will serve as a reference on these topics throughout the project.

1.2 Scope. This document defines the general capabilities the finished product must exhibit. It establishes processes for accomplishing the tasks necessary to successfully specify, design and implement those capabilities. This document does not address details related to the design or implementation of the software.

1.3 Definitions. The following are explanations of uncommon or domain-specific terms used in this document.

- **Decision Tracking Matrix (DTM):** A document to record key decisions made throughout the project’s lifespan that cross-references by relevant agendas.
- **Deliverable:** Any documentation or software produced that will be given to the sponsor for review and use.
- **Project Charter:** An outline of the nature and methods to be used during the course of the project, to be agreed upon by all stakeholders.
- **Public Services:** Any benefits provided by government agencies, or non-government organizations, aimed toward helping the general public.
- **Quality Assurance:** A set of methods for monitoring the software development process to ensure quality deliverables.
- **Slack:** A communication tool that serves as the central hub of intra-team communication.
- **Software Design Specification (SDS):** Specifics regarding the specifics of implementation of the project. Outlines various design decisions, including: Architectural, Interface, Database, and Component Design.
- **Software Engineering:** The field of study concerned with the design and implementation of software products.
- **Software Maintenance Manual (SMM):** A formal document that describes a completed software system in order to aid future maintenance and improvements to the system.
• **Software Project Management Plan (SPMP):** A formal document used as a guide for execution and control of project. Includes a list of team rules, hours of activity, a list of project issues and a work breakdown structure (WBS).

• **Sponsor Review:** The process of giving the client a completed deliverable and receiving approvals/rejections, based on the content/functionality of the given deliverable.

• **Software Requirements Specification (SRS):** Complete description of behavior and requirements of system. May include use cases, wireframes, and a listing of functional and non-functional requirements.

• **System Test Report (STR):** Results of testing activities identified and specified in STS.

• **System Test Specification (STS):** Used to describe the team’s plan for testing the software, and for specifying test cases and test procedures necessary to demonstrate that the software satisfies the requirements specified in the SRS document.

• **Support:** Includes the technical assistance, defect repair and suggested use of delivered project.

• **Testing:** The process of finding, avoiding, and detecting defects in the project.

• **User Manual (UM):** A deliverable written for the client. Includes the recommended and basic use of system, as well as figures representative of use cases.

### 1.4 References


### 1.5 Overview of Contents.** The following is a brief description of the remaining sections in this document.

2 **Project Sponsor and Sponsor Need.** The sponsor is the driving force behind any project. This section defines the sponsor’s identity and contact person, their business domain, and their needs related to this project.
3 Management Proposal. The project management proposal specifies processes and metrics Team Wakati will employ to manage and control project development.

4 Conditions and Constraints. This section specifies terms and conditions relevant to the project, including support limitations and ownership of the finished product.

5 Approval. The signatures here indicate that Team Wakati, the project sponsor, and the project advisor understand, and agree to, the terms, conditions, and commitments contained in this Project Charter.

2 PROJECT SPONSOR AND SPONSOR NEED

The sponsor is the driving force behind any project. This section defines the sponsor’s identity and contact person, their business domain, and their needs related to this project.

2.1 Sponsor Identification. The project sponsor is Code4Sac, the Sacramento Brigade of Code for America. The Code4Sac organization is described in more detail in Section 2.2.

Organization name: Code4Sac
Primary contact: Hailey Pate, Brigade Co-Captain
Primary contact email: hpate@codeforamerica.com

2.2 Sponsor Business. Code4Sac is the Sacramento chapter of Code for America, a national non-profit organization. Code4Sac shares a mission with its parent organization: “Connecting citizens and governments to design better services, encouraging low-risk settings for innovation; and, supporting a competitive civic tech marketplace” [1]. Code4Sac attempts to accomplish those aims through five activities:

• “Lead and organize”

• “Open civic data”

• “Deploy civic apps”

• “Advocate for open government”
• “Contribute to open source, civic software” [2]

2.3 Description of Need. The sponsor has been approached by multiple government agencies seeking to better expose data about available public services. Much of this data is currently available on the web, but it is often provided in ways that can make it difficult for the public to effectively access it. Machine-readable sources produce a wide variety of formats, and human-readable sources often present information categorized by department rather than user need or context.

Code4Sac has aligned the need for improving access to public services data with their central missions of “connecting citizens and governments to design better services” and “open[ing] civic data”. To that end, the sponsor has proposed the project under discussion.

• Vision. Team Wakati will provide a finished product that makes finding a public service provider as easy as for-profit applications have made finding a restaurant.

• Goals. Team Wakati has four goals for this project:

1. Develop and deliver a software system to the benefit of the project sponsor.

2. Provide the senior project team with a learning experience in which software engineering principles are applied to the development of a user specified software system.

3. Provide the senior project team with real world experience with relevant processes and technologies in order to obtain careers in software engineering.

4. Contribute a useful tool to the community.

• Success Criteria. A successful implementation of the project under consideration will fulfill the following criteria:

1. Allow a diverse public to search and filter public services data according to individual need and context.
2. Allow the sponsor to easily maintain and extend the implementation of the first criterion.

3. MANAGEMENT PROPOSAL
   This management proposal specifies processes and metrics Team Wakati will employ to manage and control project development. The information in this section will be greatly expanded upon in the SPMP and other documents that will follow from the Project Charter.

3.1 Timeline. The project timeline delineates a baseline schedule for the completion of major deliverables:

![Figure 1: Project Timeline]

3.2 Major Phases and Deliverables. The table below lists the project phases, its description and associated deliverable. A list of documents requiring review and approval from the sponsor is provided in Appendix A.

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>Phase Description</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Concept Development Phase</td>
<td>Establish the vision and scope of project.</td>
<td>Project Charter</td>
</tr>
<tr>
<td>Planning Phase</td>
<td>Develop a project management plan.</td>
<td>Software Project Management Plan (SPMP)</td>
</tr>
<tr>
<td>Requirements Analysis Phase</td>
<td>Analyze user needs and develop requirements specifications.</td>
<td>Software Requirements Specification (SRS)</td>
</tr>
<tr>
<td>Design Phase</td>
<td>Transform requirements into software design documentation.</td>
<td>Software Design Specification (SDS)</td>
</tr>
<tr>
<td>Development</td>
<td>Develop and define the system test plan and prepare use case procedures.</td>
<td>System Test Specification (STS)</td>
</tr>
<tr>
<td>Project Phase</td>
<td>Phase Description</td>
<td>Deliverable</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Integration and Testing</td>
<td>Demonstrate that developed system conforms to requirements specified in the SRS.</td>
<td>System Test Report (STR)</td>
</tr>
<tr>
<td>Documentation</td>
<td>Develop User Manual</td>
<td>User Manual (UM) and implementation</td>
</tr>
</tbody>
</table>

Table 1: Major Phases and Deliverables

• **Deliverables.** A description of each major deliverable, broken down by delivery timeframe, as well as schedules and baseline time estimations.

1 **Spring Deliverables.** During the Spring 2014 semester, Team Wakati will complete the requirements elicitation and specification phase of the project. Documentation of this phase includes:

- 1 **Project Charter.** A concise statement of core goals, values and intentions. Includes team policies on issues of requirements change, work schedule, and quality.

- 2 **Software Project Management Plan (SPMP).** A formal document used as a guide for execution and control of project. Includes a list of team rules, hours of activity, a list of project issues and a work breakdown structure (WBS).

- 3 **Software Requirements Specification (SRS).** Complete description of behavior and requirements of system. May include use cases, wireframes, and a listing of functional and non-functional requirements.

2 **Fall Deliverables.** During the Fall 2014 semester, Team Wakati will be covering the design, implementation, and testing. Documentation in this phase includes:

- 1 **Software Design Specification (SDS).** Specifics regarding the implementation of the project. Outlines various design decisions, including: Architectural, Interface, Database, and Component Design.

- 2 **System Test Specification (STS).** Used to describe the team’s plan for testing the software, and for specifying test cases and test
procedures necessary to demonstrate that the software satisfies the requirements specified in the SRS.

3 **System Test Report (STR).** Results of testing activities identified and specified in STS.

4 **User Manual.** Written for the sponsor, this document includes the recommended and basic use of system, as well as figures representative of use cases.

3 **Schedules and Time Estimations.** The following table lists the tasks associated with developing the project and the estimated person-hours required to complete each task.

<table>
<thead>
<tr>
<th>Project Task</th>
<th>Estimation of Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>193</td>
</tr>
<tr>
<td>Learning</td>
<td>147</td>
</tr>
<tr>
<td>SSP</td>
<td>62</td>
</tr>
<tr>
<td>SPMP</td>
<td>77</td>
</tr>
<tr>
<td>SRS</td>
<td>210</td>
</tr>
<tr>
<td>Sponsor Review</td>
<td>32.5</td>
</tr>
<tr>
<td>SDS</td>
<td>159</td>
</tr>
<tr>
<td>Implementation</td>
<td>270</td>
</tr>
<tr>
<td>STS</td>
<td>45</td>
</tr>
<tr>
<td>STR</td>
<td>23</td>
</tr>
<tr>
<td>UM</td>
<td>45</td>
</tr>
<tr>
<td>SMM</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>1271.5 Hours</strong></td>
</tr>
</tbody>
</table>

*Table 2: Estimation of Hours*
The expected schedule of Team Wakati meetings and of meetings between Team Wakati and the sponsor is outlined below:

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Day</th>
<th>Start</th>
<th>End</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team</td>
<td>Fri.</td>
<td>3:30pm</td>
<td>5:30pm</td>
<td>Decided on by previous Tues.</td>
</tr>
<tr>
<td>Sponsor</td>
<td>Wed.</td>
<td>6:30pm</td>
<td>8:30pm</td>
<td>1715 I St, Sacramento, CA 95811</td>
</tr>
</tbody>
</table>

*Table 3: Meeting Schedule*

3.3 Cost. Senior projects, while ‘expensive’ in terms of time, are undertaken with no expected cost to the sponsor. Below is an estimation of the ‘cost’ in terms of dollars, as related to estimated time input.

The cost of hours projected from the baseline schedule is approximately as follows: $50/hour x 1271 hours = $66,092 (this figure is provided for illustrative purposes only, the sponsor will not be billed). Any additional expenses will be borne by Team Wakati, and are expected to be immaterial towards a project budget.

3.4 Organization and Staff. The following identifies team members and their roles over the course of the project. Résumés for each team member can be found in Appendix B. Team Wakati plans to approach this project with a fluidity of roles, with a few team members taking on ‘lead’ roles and responsibilities, based on work experience:

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adrian</td>
<td>Testing Lead</td>
<td>Track testing needs, determine testing methodologies and responsibilities, and manage testing schedules.</td>
</tr>
<tr>
<td>Chambers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daniel</td>
<td>Quality Assurance Lead</td>
<td>Review of product at each stage, implementation of coding standards, and collaboration with stakeholders.</td>
</tr>
<tr>
<td>Green</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Role</td>
<td>Responsibilities</td>
</tr>
<tr>
<td>-------------</td>
<td>---------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Jesse Rosato</td>
<td>Project Lead</td>
<td>Meeting documentation &amp; scheduling, sponsor contact point, coordinator.</td>
</tr>
</tbody>
</table>

*Table 4: Roles and Responsibilities*

3.5 **Quality Assurance.** This section outlines how Team Wakati plans to maintain quality control during the course of this project.

1. **Client Collaboration.** Our team will hold regular client meetings and collaborate closely with the sponsor during requirements elicitation to ensure accuracy and delivery punctuality. By focusing efforts on Quality Assurance during requirements, Team Wakati plans to greatly reduce the overall number of potential defects in later stages of the project. Requirements elicitation will be ongoing throughout the life of the product in recognition of evolving requirements, particularly as Team Wakati moves into the design phase.

2. **Test Driven Development.** Team Wakati will make use of Test Driven Development methods to ensure sound implementation of basic functionality.

3. **Coding Standards.** Team Wakati will collaborate on creating and documenting coding standards to establish a consistent team-wide coding style.

4. **Code Reviews.** Team Wakati will hold code reviews to help bring additional perspectives into our implementation and ensure our code is readable.

5. **Dedicated Test Period.** In addition to the ongoing testing as Team Wakati implement each function, time will specifically be set aside at the end of the project to focus on finding and removing defects during integration and on the system level.

3.6 **Change Control Process.** This section outlines how requests for changes will be handled during various phases of the project.

During the requirements phase, requirements will be elicited, documented and prioritized according to sponsor need. Requests to change requirements
During this time must be submitted via e-mail or the Slack project collaboration tool. Team Wakati will assess the priority of any requested change against existing requirements and address the feasibility of the change in a timely manner (via email or Slack). Once a change to requirements has been approved, it will be logged in the Decision Tracking Matrix. If any existing requirements are altered by the change, documentation that references those requirements will be updated.

During the design and implementation phases of the project, requirements are locked and cannot be significantly altered. If the sponsor feels there is a necessary change, the sponsor can submit a change request using the process outlined above. The team will take the change into consideration and address feasibility in a timely manner. However, in the final phases of the project, the team has the right to deny any requirement changes that they feel will: increase the scope of the project, conflict with other documented requirements, or extend the deadline such that the project will not be completed by December 12, 2014.

4 CONDITIONS AND COMMENTS
This section specifies terms and conditions relevant to the project, including support limitations and ownership of the finished product.

4.1 Assumptions and Constraints. The following is a list of assumptions made by Team Wakati:

1 This project will be web-based.

2 Time constraints include the length of the semester and any preexisting team member or sponsor commitments.

3 Technical constraints include, but are not limited to, minimal support for legacy browsers and scalability of deployment.

4 Sponsor is aware of time constraints and will regularly dedicate time on a weekly basis for collaboration and requirements elicitation throughout the process.

5 This system must be able to be created in such a way that it can be expanded in the future to cover a larger geographical area.
4.2 **Limiting Conditions.** Describes limitations that Team Wakati is placing on the project and finished product.

1 **General Disclaimer.** All students majoring in Computer Science at California State University Sacramento are required to complete a two semester, senior project. The project proposed, Project Wakati, is expected to fulfill this requirement for the project team of Team Wakati. While the intent of the team is to deliver a high quality product that meets the sponsor’s expectations, neither Team Wakati, the students, faculty advisor, nor CSUS can be held responsible for any errors in the delivered software product, failure to meet any of the specified requirements, or failure to deliver the software. Furthermore, due to the academic nature of the experience and its requirement for graduation, students cannot be paid for the work associated with the project.

2 **Support Limitations.** While the intent of Team Wakati is to deliver a high quality product that meets the sponsor’s expectations, at the close of the two semester senior project, neither Team Wakati, students, faculty advisors, nor CSUS will be responsible for the maintenance and upkeep of the product. The client takes responsibility for updating and maintaining the product.

3 **Ownership of Project.** All documents and the product itself will be presented and submitted to the sponsor at the close of the two semesters. The Computer Science Department at CSUS reserves the right to use this, and future documents created, as well as the product itself as examples of student work for future senior projects.
5 APPROVALS

The signatures here indicate that Team Wakati, the project sponsor, and the project advisor understand, and agree to, the terms, conditions, and commitments contained in this Project Charter.

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adrian Chambers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anthony Cristiano</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daniel Green</td>
<td></td>
<td></td>
</tr>
<tr>
<td>James Doan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jesse Rosato</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hailey Pate (Sponsor)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meiliu Lu (Advisor)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix A
The following table lists the project phases of developing software for the sponsor. The second column lists the deliverables associated with each phase and the third column indicates a required approval from the sponsor.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Deliverable</th>
<th>Approval By</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Concept Development</td>
<td>Project Charter</td>
<td>Sponsor</td>
</tr>
<tr>
<td>Planning</td>
<td>Project Management Plan</td>
<td></td>
</tr>
<tr>
<td>Requirements Analysis</td>
<td>Software Requirements Specification</td>
<td>Sponsor</td>
</tr>
<tr>
<td>Design</td>
<td>Software Design Specification</td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td>System Test Plan and Test Cases</td>
<td></td>
</tr>
<tr>
<td>Integration</td>
<td>Testing and Software Test Report</td>
<td></td>
</tr>
<tr>
<td>Documentation</td>
<td>Software Delivery Materials (User’s Manual and Delivery CD)</td>
<td>Sponsor</td>
</tr>
</tbody>
</table>

*Table 5: Deliverables and Approvals*
Appendix B

The following are the résumés of each member of Team Wakati.
Adrian T. Chambers

OBJECTIVE: To obtain a job as a Software Engineer.

EDUCATION:
B.S., Computer Science, Concentration: Software Engineering, CSU Sacramento, Major GPA: 3.26

RELATED COURSES:
- Data Structures and Algorithms
- Obj-Oriented Computer Graphics *
- Software Project Management
- Software Engineering Specifications
- Systems Programming in Unix *
- Computer Networks and Internet
- Database Mgmt. and File Organization

- Senior Project *
- Calculus I, II, & III
- Linear Algebra
- Differential Equations
- Flash
- Web Multimedia

* In progress as of Spring 2014

KNOWLEDGE AND SKILLS

Programming:
- Visual Basic • C/C# • Java • SQL

Software:
- Microsoft Visual Studio • Eclipse • Microsoft Powerpoint • Microsoft Excel • Microsoft Word • XCode

PROJECT EXPERIENCE:

Junior Project:
Worked with a team of four to create a two part application, a front end using PHP and a back end using C#. The front end allows a student to request server space for an SQL database and then it sends this request to the Sacramento State University ECS Department so that they could fulfill it. The back end allows the user to look up when databases were created, who it was created for, and allows them to create, delete, and maintain the databases.

WORK EXPERIENCE:

Tester/Programmer
Synergex
5/13 to present

- Responsible for finding and writing out detailed information about bugs that are found within the software.
- Formulate test programs that help test and verify that bugs were fixed and no longer reproducible.
- Created test scripts using JScript to automate our test procedures and make testing a faster and more efficient process.
- Able to think quickly, troubleshoot any problems that come up, and write 4-5 test scripts daily.
- Numerous recognitions for exceeding the company’s daily workload expectations while not compromising the quality
- Daily training classes that help increase my skills in XAML, C#, Visual Studio, and Test Complete.

ACTIVITIES AND ACCOMPLISHMENTS:

- An active member in National Society of Black Engineers (NSBE), the Mathematics, Engineering Science
- Currently an Academic Mentor in the MESA Program for the past year. Work with a freshman for about 8 hours per week.
- Currently a tutor for Computer Science students.
- Worked with a team to plan and propose a business plan to address the upcoming shortage of enginee
Anthony Cristiano
2714 N Street, Sacramento, CA 925.321.7648 cristiano@csus.edu

OBJECTIVE: To inform my Senior Design team and professor of my skills and qualifications

EDUCATION:
B.S., Computer Science, CSU Sacramento, 3.857

RELATED COURSES:
- Software Project Management
- Algorithm Analysis
- Database Management
- Computer Networks
- System Programming in UNIX
- Senior Design
- Object-Oriented Principles *
- Computing Theory & Programming Language *
- Software Requirements & Specification *
- Computer Organization *
- Programming Methods & Data Structures

* In progress as of Spring 2014

KNOWLEDGE AND SKILLS

Computer Languages:
Java, C, C++, Python, Ruby, PHP, MySQL, PL/SQL, JavaScript

Communication/Organization/Leadership:
President and participant of Toastmasters public speaking club at Sac State

PROJECT EXPERIENCE:
Dynamic Reporting for National Ignition Facility (NIF)
A series of database applications that allowed for the automation and centralization of reporting within the National Ignition Facility (NIF). The software reduced the time for report generation from 20-30 minutes daily to a few seconds, while upgrading to a more enhanced, user-tailored reporting experience.

Database Management System
Developed a database management system in order to manage user project accounts for CSU, Sacramento’s Engineering and Computer Science department. This project consisted of a ‘front-end,’ a dynamically rendered sign-up page and a ‘back-end,’ a C# solution constructed to manage database transactions. Project Project utilized a LAMP stack.

WORK EXPERIENCE:
Grader California State University, Sacramento 9/13 to present
Graded tests and homework assignments for CSc 130

Computation Intern Lawrence Livermore National Laboratory 5/13 - 8/13
Designed database applications to streamline reporting for the National Ignition Facility (NIF), the world's largest laser.

Software Validation Intern Intel (Contracted through BEC) 1/13 - 5/13
Tested and validated firmware releases within a team, developed and implemented scripts to help automate the process for future engineers.

ACTIVITIES AND ACCOMPLISHMENTS:
President - Toastmasters
Dean’s Honor List/Academic Honors - Fall 2013, Spring 2013, Fall 2012, Spring 2011, Fall 2011
James Doan

OBJECTIVE: To obtain an internship in software engineering

EDUCATION:
B.S., Computer Science, CSU Sacramento, 3.21

RELATED COURSES:
- Object-Oriented Programming Principles
- Senior Design Project *
- Computer Software Engineering
- Database Management
- Computing Theory & Programming Languages
- Algorithm Analysis
- Computer Architecture
- Networks and Internets *
- Computer Organization *
- Systems Programming in UNIX *
  * In progress as of Spring 2014

KNOWLEDGE AND SKILLS

**Computer Languages:**
- JAVA, C, SQL, PHP, LISP, Intel x86 Assembly, Prolog

**Systems:**
- MS Windows XP, MS Windows Server, Unix, Linux, iOS, OSX, Android

**Communication and Project Management:**
Strong analytical and problem-solving skills acquired through the completion of software projects and computer labs. Excellent written and oral communication skills developed through project documentation and group presentations.

PROJECT EXPERIENCE:

**Database Management System**
Designed and implemented a database management system for CSU Sacramento to manage user project accounts. Elicited requirements from the client and developed a solution that made use of a traditional LAMP stack. The solution consisted of a front-end webpage to sign up user accounts and a back-end management system based on PHP.

**Instant Messaging Application**
Designed and implemented a messaging application in C. This project made use of threading and internet sockets to allow the server application to accept incoming connections from clients and allow messages to be sent and received.

**Tank Game**
Developed an interactive 2D game in Java that included graphics using AWT and Swing Components. Designed the game with Model-View-Controller architecture in mind.

WORK EXPERIENCE:

**Freelance Web-Designer**
Self-Employed 6/08 to present
Designed and maintained websites for clients using HTML, PHP, JavaScript and CSS.

ACTIVITIES AND ACCOMPLISHMENTS:
Dean's Honor List, Spring 2013
Daniel J Green
141 Hebron Circle (209) 402-3658 djgreensolving@gmail.com

OBJECTIVE: Software Engineering internship position.

EDUCATION:
In Progress: BS Computer Science, Minor in Business Administration; CSU Sacramento • May 2015
AA Computer Science, Modesto Junior College • April 2012

RELATED COURSES:
Software Engineering
Software Testing and Quality Assurance
Project Management
Databases *
Computing Language Theory
Unix System Programming
Algorithms
Discrete Structures
Computer Architecture
Financial Accounting
Managerial Accounting

* In progress as of Spring 2014

KNOWLEDGE AND SKILLS

Computer Languages:
Java, C++, Python, Visual Basic, Linux and Bash Scripting, HTML, CSS, PHP, MySQL

Hardware:
Set up, administration and troubleshooting of computer networks.

Systems:
Windows operating systems • MS Word, Excel, and PowerPoint

Communication:
• Excellent reading, writing, and editing skills via documentation of projects
• Excellent customer service skills through experience
• Strong interpersonal skills, worked successfully as a contributing and productive team member
• Experienced with data entry and record keeping
• Developed research skills

PROJECT EXPERIENCE:

Indexing Computer Equipment (ICE)
Invited back by TIS client to work with a team to create a new web based system similar to TIS, intended to keep track of hardware ordered and owned by the ECS department. Records would include if the equipment was on loan and to which staff/facility member, identifying equipment, age and past repairs of equipment, and other similar information. (2013)

Software Testing and Quality Assurance–Search Engine Optimization
Worked with a team to optimize the visibility of the http://www.paulekman.com/ website through major search engines such as Google, Yahoo, and Bing. Examined analytical data, website scripting, and page content to provide the best possible recommendations to increase web traffic to the site. (2013)

Software Engineering – Technology Incident System – (TIS)
Worked with a team to create a web based system that would allow both ECS lab users and ECS IT staff to create report tickets for technological issues, as well as build a database of reports and related hardware. TIS also notifies users of ticket progress and the completion and closing of tickets. (2013)

WORK EXPERIENCE:

QA Specialist Intern Vision Service Planning (VSP) 10/21 to present
Assisted in writing software requirements, thoroughly tested and aided in the development of applications, ensured the delivery of quality software.

Student Assistant Electric/Computer Engineering Department 8/12 - 5/17
Updated, edited, and managed front-end on the EEE and Cpe department websites. Assisted with office duties, including data entry and organization. Provided service to students, staff, faculty, and business partners.

Working 20 hours per week, while carrying 18 units per semester
OBJECTIVE: I want to help build web-based software that is innovative, usable and reliable.

EDUCATION:
Bachelor of Science, Computer Science, CSU Sacramento

RELATED COURSES:
- Data Structures and Algorithm Analysis
- Computer Software Engineering
- OO Computer Graphics Programming
- Database Management and File Organization
- Computer Theory and Programming Languages
- Computer Networks and the Internet
- Software Requirements Engineering *

Algorithm Design and Implementation
- Discrete Structures
- Business & Computer Ethics
- Probability and Statistics
- Calculus I and II
- Gen. Physics: Electricity and Magnetism
- Linear Algebra

* In progress as of Spring 2014

KNOWLEDGE AND SKILLS

Software Engineering:
Requirements elicitation and specification, system models (ERD, DFD, STD, use-case analysis), Agile methods, data design, software design, source control, continuous integration

Communication/Project Management:
Tech lead for web app startup (http://lists.io), project lead for senior project (see "PROJECT EXPERIENCE").

Communication:
Mastery of written and spoken English, coordinating a geographically-distributed team, general friendliness

Computer Languages:
PHP, Java, JavaScript, SQL, Unix shell scripting, HTML, CSS, C++, Objective C, C, C#, Python

Software:
Linux/Unix, IntelliJ suite, MS Visual Studio, Sprint.ly, Slack, Xcode

PROJECT EXPERIENCE:

Lists.io (Web Application, ongoing)
Tech lead and cofounder of a web application startup launched from a hackathon (see "ACTIVITIES AND ACCOMPLISHMENTS"). Responsible for implementation of application's server components (using Symfony2 PHP framework). Working iteratively from a minimally demonstrable product to implement unit and functional testing, and a growing feature set. Established version control and deployment tools and processes to allow a team of varying abilities to deploy to scalable AWS-based staging and production environments.

Public Services Finder (Senior Academic Project, ongoing)
Project lead for a five month-long, strongly documented, requirements engineering project, the end goal of which is a search/filter web application to allow the public to more effectively access available services. Responsible for generating meeting agendas and reports, baseline schedules, and work breakdown structures in an effort to maintain accountability and process discipline over a long project. Leading team from development of Project Charter through completion of Software Requirement Specification document.

Snippet Writer Dashboard (Web Application, ongoing)
Inherited an existing code base for a complex, web-based, content-creation application built in PHP and JavaScript. Worked iteratively in discrete sprints to design, architect, implement and test increasingly complex feature sets, including a WYSIWYG-style HTML editor, culminating in a public beta launch. Researched, created, and implemented source control and automated deployment processes to help a distributed team work more efficiently together.

WORK EXPERIENCE:

Independent Web Developer       Jesse Rosato       9/10 to present
I work as an independent contractor developing web applications. Responsibilities include software engineering, server administration, programming, sales, software testing and quality assurance, user interaction and experience design, product design, and anything else that comes up. My primary client since the beginning of 2013 has been The Snippet App (http://thesnippetapp.com), and my primary project for them is the “Snippet Writer Dashboard” (see “PROJECTS”).

**Web Development Intern**  
**Courage Worldwide**  
5/11 - 9/11

Courage Worldwide is a non-profit organization that works to rescue child victims of human trafficking. I worked with their web-development team as an intern. My responsibilities included general troubleshooting and debugging, along with extensive Wordpres development.

**ACTIVITIES AND ACCOMPLISHMENTS:**
- Tech Lead: second prize winner, Cereal Hack 4 Hackathon (Sacramento Hacker Lab)
- Volunteer: Code for Sacramento (http://code4sac.org)
- Competitor: ACM International Collegiate Programming Contest, CSUS
- Person: husband, pug owner, cyclist, D&D enthusiast

**Working 20 hours per week, while carrying 12 units per semester and maintaining a 3.2 GPA**