Yash Kamothi

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Objective

Aspiring to gain entry level engineering position in a company that can enhance my experience.

Education

Bachelor of Science in Computer Engineering – GPA 3.4
University of California, Riverside – Class of 2017

Experience

University of California Riverside, School of Medicine January 2016 - Present
Software Engineering Intern

- Develop applications using Model-View-Controller (MVC) architecture.
- Handle UX/UI with AngularJS (MVC framework) to control the page layout.
- Use Scrum methodology for the software development process.
- Design dynamic and browser compatible pages using HTML5, CSS3, JavaScript and AngularJS.
- Create forms to collect and validate data from the user in HTML5 and AngularJS.
- Provide back-end design with PHP and MySQL on a LAMP environment for client users.
- Validate forms using JQuery, Ajax, and PHP.
- Develop AngularJS components such as controllers, services, filters, models.
- Unit testing, integration testing, and end-to-end testing to cover all edge cases and prevent run time errors.
- Utilize ZohoCreator to create and modify web application forms, adding parsing and rules for input validation.
- Configure and maintain a Linux server with the necessary security policies for ports, SSH keys, access rights, file system permissions, and routing/forwarding.
- Debug code for ongoing software development and preexisting, in-use programs.
- Utilize Visual Studio and Linux for development environment to create and ship software projects.
- Develop documentation on GitLab Wiki for both personal and team constructed programs.

Space Systems Loral, Palo Alto, CA June 2016 - September 2016
Software Engineering Intern

- Create parsers in JavaScript and C that extract data from different types of files (.txt, .pdf, .xml), conduct calculations, and map them accordingly in a JSON format.
- Automate connectivity and pushing of parsed data into MongoDB and PostgresQL.
- Unit testing, integration testing, and end-to-end testing to cover all edge cases and prevent run time errors.
- Optimize software code for projects within department by means of modularization, efficiency, and durability.
- Create algorithms and data structures that accurately allow parser engine to function with desired output.
- Develop documentation on GitLab Wiki for both personal and team constructed programs.
- Utilize Windows, MingGW, Cygwin, NPM, Gulp, Node, and Atom for development environment.

Projects

All projects are open source and can be found here: https://github.com/ykamo001

- ***Rshell*** - Much like Bash, Rshell is a program that takes in user input commands and executes them. Rshell is a command shell that I wrote from scratch using mostly C and C++ with some modifications and limitations. It utilizes fork for child/parent multi-processing, parsing, signal handling, piping, and other shell properties to enhance the program.
- ***FeatureSearch*** – FeatureSearch is an artificial intelligence program that utilizes k-fold cross validation and nearest neighbor algorithms to find the best features to use for classification. It implements forward selection, backwards regression, and a custom algorithm I remodeled. I programmed it fully in C++, and have written a report on my findings.
- ***GitMap*** - A utility that creates a map of your Git repository, showing all the commits of each branch in an organized and easy to read diagram, stored in a file. Along with two other colleagues, we have written and programmed the entire utility from scratch in a shell script.
- ***GuitarHero*** - A game, much like the famous Guitar Hero, except that it runs on a breadboard with basic electrical components. I programmed and built the entire game from scratch, using C - here is a link to a video I made which briefly shows the game in action and goes over the components: https://www.youtube.com/watch?v=i45QvAkXZts