Sudharsan Prabu

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EDUCATION

UNIVERSITY OF WASHINGTON
BS in Computer Science
Expected Spring 2018 | Seattle, WA
College of Engineering

SKILLS

PROGRAMMING
Proficient:
Java • C • C++ • Javascript
HTML/CSS • LaTeX
Familiar:
Python • SML • Ruby • Racket
Node.js • C# • MySQL
Technologies:
Android • MySQL

COURSEWORK

UNDERGRADUATE
Data Structures
Systems Programming
The Hardware-Software Interface
Functional Programming
Programming Languages
Foundations of Computing I/II
Computer Programming I/II

LINKS

Github:// **sudharsanprabu**
LinkedIn:// **sudharsanprabu**

SOFTWARE

IntelliJ IDEA • Git • Vim
Android Studio • Bootstrap • Flask
Mercurial

AWARDS

• International Baccalaureate Diploma
• Direct Admit into CSE Department

EXPERIENCE

UW RSE LAB | Research Assistant
June 2016 – Present | Seattle, WA
- Worked under the supervision of a graduate student to use convulutional neural networks for the perception of liquids.
- Wrote several ROS python scripts to train the network to identify water in different settings
- Using the Fluidix plugin for Gazebo, currently working on a fluid dynamics simulator which uses GPU processing.

COSMIC MUON LAB | Research Assistant
June 2015 – September 2015 | Seattle, WA
- Worked under the supervision of Professor Shieh Chieh Hsu to study cosmic rays by measuring muon flux. Done by constructing several muon detectors and syncing their data output.
- Developed a C++ program to sift through the data received from the detectors and present statistics upon which analysis could be made
- Presented findings on the experiment in which I sought the correlation between zenith angle and the muon flux

PROJECTS

RICHSYND | RSS Aggregator
Java, XML, SQLite
- Created an RSS aggregator featuring simplicity and ease of use
- Implemented using XMLPullParser for Android to filter the XML into headline stories which could be legibly presented in the app interface
- Focused design on material and minimalistic principles

MULTITHREADED WEB SERVER
C++
- Implemented a web server to handle query requests for users
- Parsed incoming HTTP requests using the Boost Regex Library and then displayed the related query results via the browser
- Protected against common security vulnerabilities in web servers such as the cross-site scripting flaw and the directory traversal attack

QUERY PROCESSOR | Inverted Index Search
C++
- Created a search engine which uses an inverted index to output a ranked list of documents based on the query
- Built using scratch implementations of LinkedList and HashMap

MAPIFY | Trip Itinerary Planner
HTML, CSS, Javascript, Bootstrap, JQuery
- Created a trip itinerary planner at DubHacks 2015 using Google Maps API and Google Place API
- Uses a starting location and ending location to then plan a trip with the highest rated points of interest.