**OBJECTIVE**

**Pursuing job opportunities that implement computer science and engineering concepts within extending skills of software design process, interface implementation, and testing.**

**SUMMARY OF TECHNICAL EXPERTISE**

* **C++ and Java programming**
* **Web application programming**
* **Relational Database Management System**

**SUMMARY OF EXPERIENCE**

* **knowledge in Object-Oriented Design and Objected-Oriented Programming languages**
* **Experience of Struts with Eclipse JEE**
* **Experience MVC Framework, AJAX, REST in LAMP environment using Codeigniter**
* **Experience with script languages such as PHP, Python, CSS, JQuery, JavaScript, R-script, Google Map API**
* **Experience in Software & Tools such as Eclipse, Visual Studio, Matlab, github.**
* **Experienced Programming with android SDK**
* **Experienced Networking with socket programming.**

**EDUCATION**

**M.S, Computer Science**

**Portland State University, Portland, Oregon 6/2010**

**B.S, Computer Science**

**Portland State University, Portland, Oregon 3/2007**

**EXPERIENCE**

**Analyst Programmer 9/2011 – 9/2012**

**Academic & Research Computing/OIT, Portland State University**

* **Provided Database Maintenance and Support for Portland Oregon Regional Transportation Archive Listing (PORTAL:** [**http://portal.its.pdx.edu**](http://portal.its.pdx.edu)**)**
* **Created new database, and other import and export scripts for database**
* **Created RESTful API to interact PORTAL database**
* **Generated reports from the database using psql**
* **The tools used mainly are eclipse, codeigniter, JQuery, GitHub, open source, and some my own script**
* **The languages used mainly are python, psql, bash shell, php, javascript, and R-script**

**Research Analyst 6/2010 – 6/2011**

**Intelligent Transportation System Laboratory, Civil Engineering Department, Portland State University**

* **Develop survey application with android SDK**
* **Provided support to maintain Database and web application for Oregon Traffic Safety Data Archive.**
* **The tools used mainly are eclipse, Android SDK, codeigniter, JQuery, and Highchart.**
* **The languages used mainly are Java, MySql, bash shell, php, and javascript.**

**Graduate Research Assistant 3/2008 – 6/2010**

**Intelligent Transportation System Laboratory, Civil Engineering Department, Portland State University**

* **Researched for Algorithm of Vehicle Routing Problem (VRP)**
* **Upgraded Algorithm of Vehicle Routing Problem with Time Window (VRPTW) for optimal solution**
* **Provided automate script to test complexity of VRPTW solution.**
* **Created materialized plotting interface.**
* **Created new Database for Oregon Traffic Safety Data Archive**

**(OrTSDA:** [**http://web.cecs.pdx.edu/~ortsda/plot/index.php/login**](http://web.cecs.pdx.edu/~ortsda/plot/index.php/login)**)**

* **Developed web user interface to plot database of OrTSDA**
* **Upgraded map plot-application of OrTSDA to handle big dataset.**
* **The tools used mainly are eclipse, codeigniter, JQuery, Highchart, Google Map API, JPGraph**
* **The languages used mainly are C++, MySql, bash shell, php, javascript, RScript**

**Research Assistant 8/2005 – 8/2007**

**Computer Science Department, Portland State University for Prof. Suresh Singh**

* **Provided support for measurement for Embedded In-Building Sensor Network to Assist Disaster Rescue**
* **Helped to produce a scan-like view of the interior of a collapsed building to aid disaster rescue and provided a 3D view of the collapsed interior indicating the structurally strong support walls and cavities.**
* **The tool used mainly is matlab.**

**Capstone Project - Document Synchronization Engine (DSE) 9/2006 – 3/2007**

* **DSE is software acting as an interface between Jama’s Contour application and Microsoft Word. The DSE accepts an XML document from Contour and modifies it into a Word document. Users are able to edit this document, which the DSE can accept and transform back into an XML document for import into Contour. End users are able to change the database while using a familiar word processor**
* **Created DSE an engine in java for the conversion between Jama’s XML and Word XML.**
* **The languages used mainly are java, swing, xslt and xml**

**Language**

* **Korea / English**