Rubie Guo
(512) 876-4897/ rubieguo@gmail.com/ Austin, TX

Technical Skills

Programming Languages: Python, C, C++, Java, SHELL, Ruby.
Frameworks/Libraries: Django, Pygame, Node.js, AngularJS, Bootstrap, Rails, Numpy, Pandas, Socket, jQuery.
Database: SQL, SAP, Hive, Hadoop, Oracle Database.
System/Tools: Linux, Vim, Git, Tableau, Jekyll, Jupyter Notebook.

Work Experience

UAMS - *Software Engineer* *January 2017-February 2018*

- Designed and built data pipelines to process large amounts of surgery data using Hadoop, Hive, and SQL.
- Implemented and debugged applications to process surgery products data in Python.

BBA Solutions - *Front-End Web Developer* *June 2016-November 2016*

- Developed and maintained view layer of MVC framework with JavaScript, HTML, CSS, and Bootstrap.
- Built RESTful web services with Ruby on Rails and JSON and managed various databases in MySQL.

Nanjing Baoyan Automation Co., Ltd - *Intern* *June 2012-November 2013*

- Designed 3D object modeled with Auto-CAD and tested models using plastic layers with a 3D laser printer.
- Tested various data of 3D objects and calculated their parameters.

Project Experience

Human Activity Recognition using Inertial Measurement Data *May 2016*

- Developed interface application to read gyroscope and accelerometer data from IMU (C++).
- Tested and analyzed various noise in angular rate and acceleration data(MATLAB).
- Implemented algorithms to recognize human activities such as walking, sitting and running (MATLAB).

A Comparative Study of SIFT and SURF's Performances in SLAM *January 2016*

- Applied SIFT and SURF separately to detect features on 3D sequence images, with pose changes being calculated using SVD method and optimized by Pose Graph Optimization (MATLAB).
- Compared accuracy and efficiency of SIFT and SURF's performances in VRO-PGO process (MATLAB).

3D Point Clouds Registration *September 2015*

- Implemented VRO to get robot pose, extracted image features using SIFT (C++).
- Integrated pose changes to global coordinate to construct a consecutive trajectory along with the corresponding 3D map (C++).

Data Acquisition Application Development in Linux OS *September 2014*

- Built a new Linux kernel with customized features on a lab computer (SHELL).
- Developed a serial communication application in the LINUX OS (C).

Education

Master of Science in Computer Science - *University of Arkansas* May 2016
Relevant Coursework: Real-Time Embedded Systems, Math Statistics, Parallel Processing, Image Processing, System Design and Analysis, Linux Systems Programming.
Bachelor of Science in Electrical Engineering - *Nanjing Normal University* July 2014

Volunteer Experience

Class Intepreter - *Bell Flight* March 2018
Information Technology Specialist - *US China Innovation Alliance* April 2018