

Ming Xu

Addr: 16 Young Orchard St #3, Providence, RI 02903. Email: ming_xu1@brown.edu Tel: (+1)401-215-4630

OBJECTIVE

Seeking full-time SDE position starting from July, 2020

EDUCATION

- **Brown University** **Providence, RI, USA**
 - Master of Computer Engineering, GPA: 3.7/4.0 Aug. 2018-May 2020
 - Courses: C++ Scientific Programming, Machine Learning, Computer Vision, Modern Web Application, AI.
- **Harbin Institute of Technology** **Harbin, Heilongjiang, China**
 - Bachelor and Master of Mechanical and Electrical Engineering, GPA: 3.8/4.0 Sep. 2007-June 2013

WORK EXPERIENCE

- **Alexa, Amazon Device** **Seattle, US**
 - SDE Intern** Jun. 2019- Aug. 2019
 - Intern Project: Local Execution of Simple Routines** Jun. 2019- Aug. 2019
 - Optimize the whole architecture of the service to execute Alexa routines
 - Identify simple and complex routines and select suitable dispatcher for different routines
 - Use AWS Step Function and AWS Lambda to manage the complex workflow of complex routines
 - Use local service provider to execute simple routines directly
 - **Result:** Save over 4000 dollars on AWS services per month. Improve the overall latency of executing a simple routine by over 300ms.
- **2012 LAB, Huawei Technology** **Shenzhen, China**
 - Software Development Engineer** Sep. 2016- May. 2018
 - Senior Automation Engineer** July. 2013- Sep. 2016
 - Project: Development of Manufacturing Analysis Software for Optics Factory** Sep. 2017-June. 2018
 - Build the software tool communicating with the manufacturing execution system(MES) in json format by socket communication by C# and C++
 - Implement analysis and visualization of huge amount of manufacturing data.
 - Project: Development of Active Alignment Machine for Transmitter Optical Sub-assembly** Dec. 2015-June. 2016
 - Design the software by C# and C++, controlling all the stages, sensors and other devices to operate automatically
 - Enhance the usability of the machine by providing script programming and parameter configuration function
 - **Result:** In the past, the cycle time(CT) was **over an hour**, and the first pass yield(FPY) was less than **80%**. By using our machines, the PFY is above **95%**, and the CT is reduced to less than **25 minutes**. Considering the great improvement of efficiency and yield, several millions was saved.

SELECTED PROJECTS

- Project: Contour Generation based Conditional Generative Adversial Neural Network** Feb. 2018- May. 2019
 - Utilize a Conditional Generative Adversial Neural Network(C-GAN) to generate contour of a image
 - Optimize the C-GAN to detect boudary of a image
- Project: 3D Simulator of Solar System** Nov. 2018- Dec. 2018
 - Implement a 3D object renderer with multiple functionalities supporting shadows, surface reconstruction and texture mapping under **QT** and **OpenGL**.
 - Accelerate the computation of real-time dynamic parameters for all astronomical objects by using **C++ AMP**
- Project: Low-level image processing** Sep. 2018- Nov. 2018
 - Design a geometric model for computation of vision odometry involving smoothing and filtering algorithms
 - Optimize low-level image processing method by applying dynamic programming and optimized filters using matlab

SKILLS

Programming Language: C++, C#, Java, Python

Front-end development: HTML5, CSS, JavaScript, react.js

Database: MySQL, Mongo DB, SQLite3