# Jian Qiu (Leo) Huang

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#### **EDUCATION & HONORS**

Binghamton University, State University of New York

Binghamton, NY Expected May 2016

The Thomas J. Watson School of Engineering

Bachelor of Science in Computer Science, Minor in Mathematics

Major GPA 3.74 / 4.00 | Cumulative GPA 3.45 / 4.00

Dean's List: Spring 2014, Fall 2014

**SKILLS** 

Programming Languages: C++, C, Java, HTML/CSS, Objective-C

Software and OS: VIM, Eclipse, Linux, Xcode

Coursework: Operating Systems, Computer Systems I: Machine Organization and Architecture, Object-Oriented Programming,

Data Structures & Algorithms, Computer Systems II: Architecture and Programming

Foreign Languages: Native in Mandarin, and Fluent in English

PROJECT EXPERIENCES

# **Multi-Process Synchronization – Bounded-Buffer Problem**

Binghamton, NY

Developer

December, 2015

- Developed an optimized program that uses multi-threading mechanisms to solve synchronization, dead-lock, and starvation issues
- Utilized Pthreads mechanisms such as mutex lock, condition variable, and semaphore to acquire the desired thread interaction

## Labyrinth Solver Simulator - Shortest Path Algorithm

Binghamton, NY

Co-developer November, 2014

- Collaborated with a partner to analyze, design, and implement a maze-solving algorithm with graphical representation in C++
- Evaluated the runtime efficiency of various algorithms, including the Wall-follower, Pledge, and Dead-end filling approaches, to determine the optimal implementation
- Programmed functionalities such as maze scanning, path computation, and step by step path demonstration
- Completed the project in less than two weeks with an outstanding average time complexity of O(n), presented results to an audience with more than 50 students and faculty members, awarded as the top 5 most interesting projects

# MIME (Multi-Purpose Internet Mail Extension) Content-Transfer-Encoding

Binghamton, NY

SMTP (Simple Mail Transfer Protocol) - Base64

Team leader & Co-developer

December, 2013

- Coordinated a team of three to design and implement a binary-to-text-encoding scheme that represents binary data in an ASCII string format by translating it into a radix-64 representation in C
- Completed an encoding scheme that ensures data integrity for binary data that need to be stored and transferred over media
- Investigated performance efficiency, accuracy, and compatibility across multiple platforms

# RELEVANT EXPERIENCE

# Binghamton University Upsilon Phi Epsilon (UPE)

Binghamton, NY

Student tutor

September, 2014 – Present

- Provide learning assistance to students through one-to-one or small group meetings with a professional manner
- Encourage a positive student/teacher relationship; practice and promote accurate, honest, and truthful learning environment
- Improve students' academic standing by providing clear explanation of computer science related topics

## Association of Computing Machinery (ACM)

Binghamton, NY

Active member

September, 2013 – Present

- Participate in weekly meetings that focus on providing computer science related knowledge
- Engaged in Association of Computing Machinery's annual programming competition to demonstrate individual problem solving skills with strong programming and algorithmic background. Named to be the top 10 over more than 100 contestants

#### WORK EXPERIENCES

**Fortune Cookies** Staten Island, NY

- Maintained a welcoming environment by assisting, addressing, and resolving customer inquiries and needs
- Facilitated more than 300 transactions per day, the safekeeping of more than \$5,000, and the flow of overall operations
- Established constructive and effective relationship with staff, and hosted weekly meetings to investigate future planning

#### **Another Computer Store**

Assistance Manager

Brooklyn, NY

May - August, 2014

Repair technician May - August, 2013

- Consulted with customers to examine hardware or software problem, explained the problem in a clear and understandable way, and provided feasible options for repair or replacement
- Demonstrated the ability to diagnose, repair, and test hardware issues in a timely and efficient manner, refurbished more than 50 smartphones and 20 computers in the course of this job