CHING-WEI LIN

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EDUCATION

Portland State University, Portland, Oregon

Dec. 2019

Master of Science, Department of Computer Science

GPA: **3.65/4.0**

Data Structures, Algorithms & Complexity, Operation Systems, Programming Language, Internet & Cloud system

National Taiwan University, Taipei, Taiwan

Jun. 2015

Bachelor of Science, Department of Mechanical Engineering

PROFESSIONAL EXPERIENCE

Global Payments Inc.

Portland, Oregon

Software Engineer Intern

Jun. 2019 – current

- Upgraded security scanning system to modularize it and convert its format from XML to JSON
- Developed website application for security report catalog, implemented both front-end and backend
- Optimized the time and space complexity in new security scanning system

Catch A Ride, Corp

Software Engineer Intern

Portland, Oregon

Jan. 2019 - Apr. 2019

- Developed customized websites including online membership system for customer using
- Created customer notification function by leveraging Uber and Lyft data with internal system
- Integrated the customer information database with Authurize.net for sales purpose

Grand Energy Technology Ltd.

Taipei, Taiwan

Software & Process Engineer

Jul. 2015 - Jun. 2017

- Implemented PLC program controlling automation systems
- Developed the Oxygen feedback control system to monitor and optimize the combustion condition continuously.
- Designed new manufacture process using two remix systems to save the wasted time from the emulsion process, as a result, gained 50% larger output for the equipment.

ACADEMIC PROJECT

Graphic Computation System (C++)

Sep. 2019 - Dec. 2019

- Implemented graphic computation system with color-to-gray, edge detection, re-scaling and rotation function
- Optimized graphic user interface by reducing time complexity

Hand Digit Recognition (Python)

Mar. 2019 – Jun. 2019

- Implemented recognition neural network and resulted a 95% accuracy recognition system
- Optimized learning algorithm from nested loop to matrix calculate by using NumPy

Artificial Intelligent Projects (Python)

Jan. 2019 - Mar. 2019

- Optimized 8-puzzle game solutions by A* algorithm and, reducing average steps by 80%
- Optimized 8-queen problem solutions by applying Genetic Algorithm with optimal populations and mutation possibility, improving the memory efficiency by 40%

Internet Relay Chat Room (Python)

Sep. 2018 – Dec. 2018

- Implemented chat room application using Python socket API handling with multiple threads
- Implemented chat room features including broadcasting, creating rooms, joining rooms and private message

Website Development Using Java GWT (Java)

Jun. 2018 – Sep. 2018

- Implemented both website client and server in HTTP-based network communication and a complex web-based user interface with Google Web Toolkit
- Optimized user input error detection reducing code time complexity by 50%

TECHNICAL SKILLS

Programming Language: C/C++, Java, Python, SQL, JavaScript, PHP, HTML, XML, JSON, Scala, PLC language