CHENG-LIANG YU

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EDUCATION

University of California, Irvine   Irvine, CA

M.S. in computer Science, GPA: 3.66   Sep 2018 – Present (Expected Graduation Date: Jun 2020)
- Selected Coursework: Database Management, Distributed System, Parallel Programming

National Chiao Tung University   Hsinchu, Taiwan

B.S. in Computer Science, GPA:3.63   Sep 2013 – Jan 2017
- **Dean's List** x 1 (top 5% in the department of about 200 students)
- Selected Coursework: Data Structure, Algorithms, Operating System, Software Engineering

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EXPERIENCE

Software Engineering Intern @ TomTom, Inc (Taipei, Taiwan)   July 2019- Present
- Developed a CI/CD scripted Jenkins pipeline programmed in Groovy and integrated Jenkins with Xray.
- Implemented customized pipeline features tracked with JIRA and Git version control.
- Automated integration tests and reduced the cost for testing by 10%.
- C++ development on Product team for TomTom's navigation software. Validated data sent from navigation kit to view kit, enhanced the stability of UI of Mitsubihi's GPS device used by over 1 million users worldwide.
- Used Google Test framework (GTest, GMock) for C++ to build unit tests for Qt user interface.

PROJECTS

Relational Database Management System   Spring 2019

A database management system implemented by C++ (https://github.com/nuslarry/cs211-RDBM)
- Implemented key modules including Paged File Manager, Record-Based File Manager, Index Manager, Relational Manager and query engine.
- Enhanced the speed of specific queries from $O(N)$ to $O(\log N)$ by creating indexes using unclustered B+ tree
- Supports basic SQL operations including Selection, Projection, Joins, and Aggregate operations.
- Tech Stack: C++, GDB, Valgrind, Eclipse

Calendar Desktop Application   Fall 2018

A Java based calendar desktop application (https://github.com/CS2103JAN2017-T11-B3/main)
- Supports agenda planning with functionalities including ranked by priority, recurring event and customized event search.
- Independently designed and implemented user interface with JavaFX.
- Created test cases and synchronized the project with Travis CI. Increased the test coverage from 70% to above 90%.
- Tech Stack: Java, JavaFX, Travis CI

Real-Time Chat Room Application   Fall 2017 - Spring 2018

A web based real time chatting application (https://mead-node-chatapp.herokuapp.com/)
- Supports bi-directional communication between web clients and servers by leveraging Express.js and socket.io.
- Supports real time location sharing using HTML5 Geolocation API.
- Tech Stack: Node.js, Express.js, Jest

SKILLS

- **Programming Language**: C++, Python, Java, JavaScript, HTML, Node.js, PHP
- **Tool/Framework**: Git, Jenkins, Groovy, GTest, GDB, Valgrind, Qt, JavaFX, MATLAB, Laravel
- **Platform**: Unix, Linux, MacOS