

Chiao Fu

11756 Westview Pkwy. Apt 18, San Diego, CA, USA, 92126

+1(858) 999-4785 | chiaofu93@gmail.com | [joannewolf](#) | [chiaofu](#)

Work Experience

Intuit. Inc

San Diego, USA

SOFTWARE ENGINEER

Jun. 2018 - Present

- Built and maintained data ETL pipelines to support data analysts and data scientists, which processing over millions of transactions daily
- Built and owned frameworks to apply configuration-as-code for managing transient clusters and data ingestion, which broadly used by 40+ engineers
- Applied big data technologies like Hadoop, Spark, Kafka, and AWS Cloud technologies to implement big data batch or streaming processing

Delta Electronics Research Center

Taipei, Taiwan

SOFTWARE ENGINEERING INTERN

Jul. 2017 - Aug. 2017

- Developed web user interface for controlling automated guided vehicle (AGV) and showing its real-time status
- Integrated the AGV with IEEE 802.15.4 radio module and ensured connection security in factory scenarios (C/C++)
- Integrated the AGV with wireless charging module exploiting CAN-bus protocol based on Robotics Operating System (ROS) (C/C++)

MediaTek

Hsinchu, Taiwan

SOFTWARE ENGINEERING INTERN

Jul. 2015 - Aug. 2015

- Developed an automated testing system for Android TV with user-friendly web interface (UNIX shell scripting, HTML, JavaScript, CSS)
- Designed unified format for testing scripts, which made it easier to add or edit test cases (System Design)

Network Administration Team, CSIE, NTU

Taipei, Taiwan

ADMINISTRATIVE TEAM LEADER

Sep. 2015 - Jun. 2016

- Assisted in managing and improving the network environment of CSIE building in NTU
- Hosted weekly meetings with total 4 teams of more than 20 people

Education

University of California, San Diego (UCSD)

San Diego, USA

M.S. IN COMPUTER SCIENCE AND ENGINEERING

Sep. 2016 - Mar. 2018

- Course: Algorithm, Software Engineering, Database System, Communication Network, Embedded System, Human-Computer Interaction Design

National Taiwan University (NTU)

Taipei, Taiwan

B.S. IN COMPUTER SCIENCE AND INFORMATION ENGINEERING & ECONOMICS

Sep. 2011 - Jun. 2016

- Mobile and Vehicular Network Laboratory, Software Engineering Laboratory

Project Experience

Those Days: Auto-generated Diary Utilizing Context Information - Android App

[PROJECT LINK] [SLIDE LINK]

Sep. 2017 - Dec. 2017

- Designed, implemented and performed experiments on the core algorithm to convert raw context data to meaningful events (Java)
- Established features modularization and achieved efficient parallel development while adopting Agile methodology

ASTREL: A Smart Task Reminder for the ELderly - Android App, Embedded System

[VIDEO LINK] [PROJECT LINK] [SLIDE LINK]

Apr. 2017 - Jun. 2017

- Built smart home devices with Raspberry Pi and sensors to gather information of task completion (C/C++)
- Integrated with Google Firebase Database and Firebase Cloud Messaging to update notification schedule dynamically and automatically (Python)
- Developed an Android app as a task reminder, which users can customize their voice and text messages (Java)

Humanometer: Human Counting System based on Computer Vision - Embedded System

Jan. 2017 - Mar. 2017

- Developed a human counting system exploiting OpenCV on Raspberry Pi (C/C++)
- Achieved system detection rate over 85% and human recognition rate over 95% with processing rate up to 20 fps

MeHow: Smart Diary in Your Pocket - Mobile Web App

[VIDEO LINK] [PROJECT LINK] [POSTER LINK]

Dec. 2016 - Mar. 2017

- Developed an responsive mobile web app for user to easily keep a diary with text, photo, or voice recording (HTML, JavaScript, CSS)
- Constructed the infrastructure of web app using Node.js, Express.js, and Bootstrap framework
- Created the whole app from designing and prototyping to implementation and performing experiments

SplitSmart - Android App

[PROJECT LINK]

Sep. 2016 - Dec. 2016

- Adopted Agile methodology to develop an Android app for users to easily share bills by scanning receipts (*Java*)
- Designed and implemented the model-view-controller (MVC) system structure applying object-oriented design (*System Design*)

LightBib: Marathoner Recognition System with Visible Light Communication - Embedded Sys.

[PAPER LINK] [SLIDE LINK]

Jun. 2015 - Dec. 2015

- Designed and implemented the novel communication and recognition system from zero using OpenCV and embedded systems (*C/C++, Arduino*)
- With average recall of 90% to automatically identify each of the 5 runners in a single image in a wide range of scenarios
- Was a team leader and contributed in every stage of the project from designing, implementing and evaluation to writing paper and presentation
- Implemented the communication system from zero with Arduino and openCV skills
- [paper link] [slide link]

Visible Light Communication between Vehicle & Traffic Signal - Embedded System

[VIDEO LINK] [SLIDE LINK]

Apr. 2015 - Aug. 2015

- Successfully implemented the Green Light Optimal Speed Advisory (GLOSA) algorithm, providing drivers the most optimal speed when passing the traffic light
- Built the whole system including a car and a traffic light in miniature (*C/C++, Arduino*)
- Won Finalist Certificate in 2015 TECO Green Tech Contest

[paper link] [video link] [slide link]

Skills

Programming Language	JAVA, Scala, Python, C/C++, Matlab, UNIX shell scripting
Technology	Amazon Web Service, Spark, Hadoop, Kafka, Apache Beam
Software	Git, Android Studio, Arduino, OpenCV, Visual Studio, AutoCad, \LaTeX
Knowledge	Object-Oriented Programming, Design Patterns, Agile Software Development

Publication

IEEE International Conference on Internet of Things (iThings)	Sydney, Australia
LIGHTBIB: MARATHONER RECOGNITION SYSTEM WITH VISIBLE LIGHT COMMUNICATION, FIRST AUTHOR	Dec. 2015

ACM Workshop on Visible Light Communication Systems (VLCS)	Paris, France
LiBEAMScanner: Accurate Indoor Positioning with Sweeping Light Beam, THIRD AUTHOR	Sep. 2015