

# Joanne Chang

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## EDUCATION

### Computer Science & Engineering, Bachelor of Science

University of California, Davis

GPA: 3.45

*Graduation: June 2020*

#### Relevant Coursework

- ♦ Data Structures
- ♦ Algorithm Design
- ♦ Software Engineering
- ♦ Web Programming
- ♦ Probability & Statistical Modeling
- ♦ Computer Architecture
- ♦ Gameplay Programming
- ♦ Computer Security
- ♦ Operating Systems
- ♦ Embedded Systems
- ♦ Computer Networks

## SKILLS

*Software:*

- ♦ Python, Java, C, C++, C#, Swift
- ♦ LaTeX, Chisel, R, MATLAB

## EXPERIENCE

### Software Engineering Intern, KLA, Milpitas, CA

*June 2019 - September 2019*

- ♦ Created data analysis software to calculate summary statistics, with an emphasis on process capability index Cpk, of collected server data & wrote a test program to validate results (*both in Python*)
- ♦ Prepped, trained, and tested different linear models using machine learning algorithms to predict hardware part failure dates based on hardware parameter data (*Python*)
- ♦ Attended daily standup meetings, worked with KTTS Engineering department team, discussed feature requests with project stakeholders, prepared for and gave presentations showcasing projects

## PROJECTS

### Aggie Dish App, Senior Design Project

*January 2020 - June 2020*

- ♦ Developed the frontend of an iOS mobile app both programmatically and through storyboard in Xcode (*Swift*)
- ♦ Implemented protocol buffers for app's server API, primarily building various gRPC methods to get specific eatery and meal menu data from Firebase to the frontend (*Java*)
- ♦ Demonstrated ability to work within tight engineering constraints put on the project, including adhering to strict design requirements and going through extensive code review processes

### Delivering Consequences, Gameplay Programming

*November 2019 - December 2019*

- ♦ Worked on the animation and visuals of a top-down 2D role-playing game using the Unity game engine, with focus on creating the animation scripts for player and non-player character movements (*C#*)
- ♦ Project available here: <https://github.com/thenintendodude/Delivering-Consequences-Game>

### IFTTT to Twitter, Embedded Systems

*May 2019*

- ♦ Modified a CC3200 LaunchPad with circuits and uploaded code to decode IR signals from an IR remote to alphanumeric symbols that can be outputted to an on-board OLED display screen (*C*)
- ♦ Utilized the REST API to connect the LaunchPad as an IoT device to Twitter using web hooks to send generated messages over the Internet as a form of text messaging

### Airbnb Price Predictor, Probability & Statistical Modeling

*March 2019*

- ♦ Devised a linear model that predicts Airbnb rental prices in the San Francisco area (*R*)
- ♦ Optimized linear model through data analysis using mean absolute percentage error (MAPE)
- ♦ Reduced initial MAPE of about 60 to 45 after four model changes

## ACTIVITIES

- ♦ Member, Davis Computer Science Club (*DCSC*)
- ♦ Member, Society of Women Engineers at UC Davis (*SWE*)

*September 2016 - June 2020*

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