# Joanne Chang

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## EDUCATION

**Computer Science & Engineering, Bachelor of Science** *Expected Graduation: June 2020*
University of California, Davis
GPA: 3.349

***Relevant Coursework***

- Data Structures
- Algorithm Design
- Programming Languages
- Probability & Statistical Modeling
- Computer Architecture
- Machine Dependent Programming
- Operating Systems
- Embedded Systems
- Software Engineering (ongoing)

## SKILLS

*Software:*
- Java, Python, C, C++, C#
- LaTeX, Chisel, R, MATLAB

## EXPERIENCE

**Software Engineering Intern,** *KLA*, Milpitas, CA *June 2019 - September 2019*

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

## PROJECTS

**IFTTT to Twitter,** *Embedded Systems* *May 2019*

- Modified a CC3200 LaunchPad with circuits and C code to decode IR signals from an IR remote to alphanumeric symbols that can be outputted to an on-board OLED display screen
- 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

**File System,** *Operating Systems* *May 2019*

- Programmed a FAT-based file system software stack using C code that mounts and unmounts formatted partitions, reads and writes files, and creates and removes files
- Constructed testers in C to track the progress of the file system code at each stage of code development

**Airbnb Price Predictor,** *Probability & Statistical Modeling* *March 2019*

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

**Davis In-Order CPU,** *Computer Architecture* *January 2019 - March 2019*

- Implemented a simple in-order CPU design over a series of 4 labs in Chisel code
- Integrated pipelining and branch predictors to speedup performance of CPU for various workloads
- Reported on simulated benchmark results of single-cycle versus pipelined CPUs using different types of branch predictors

## ACTIVITIES

- Member, Davis Computer Science Club (*DCSC*) *September 2016 - Present*
- Member, Society of Women Engineers at UC Davis (*SWE*) *September 2016 - Present*