

# Christian Setiawan

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## EDUCATION

**University of California, Davis**  
De Anza College (Transfer)  
B.S. Electrical Engineering  
Overall GPA: 3.2/4.0  
Expected Grad: *June 2018*

## SKILLS

### Circuit Design Software/Tools

- Altera Quartus, ModelSim
- Breadboard Prototyping
- Cadence OrCAD
- DMM, Oscilloscope, Soldering
- Function Generator
- PCB Design, EAGLE
- PSpice Advanced Analysis
- VirtualBench

### Programming Languages

- C/C++      • Python
- Java        • Verilog
- MATLAB    • Assembly

### Languages

- Engineering Technical Writing
- Mandarin (Spoken)
- Indonesian (Spoken)

## COURSEWORK

- Analog Circuits I – II
- Autonomous Vehicle Project
- Computer Architecture
- Device Physics I
- Digital Systems I – II
- Electromagnetics I
- Object-Oriented Prog. in C++
- Problem-Solving with C Prog.
- Technology Management

## ACTIVITIES

**Theta Tau – Professional Engineering Fraternity**  
*June 2016 – Present*

**Institute of Electrical and Electronics Engineers (I.E.E.E.)**  
*January 2016 – Present*

## EXPERIENCE

**Hardware Engineer Intern** | S&C Electric Company  
Alameda, CA

*June 2017 – September 2017*

- Engineered an OrCAD Capture template that made company parts compatible with PSpice Advanced Analysis, assisting in the development and validation of new and existing circuitry.
- Improved Design For Reliability Plan by identifying critical factors that minimize component failure.
- Integrated over 100 parts in future prototype schematics with de-rating and tolerance parameters.

**Electronics Engineer Intern** | US Department of Defense – Defense Microelectronics Activity  
McClellan, CA

*October 2016 – April 2017*

- Manufactured integrated circuit wafers with four engineers in a semiconductor fabrication lab.
- Boosted lab efficiency by collecting data from metrology tools and by optimizing test conditions and variables, resulting in decreased experiment time and increased diffusion yield on wafers.
- Conducted a daily quality check of over 100 components, equipment, and gases in two facilities.

**Computer Technician** | University of California, Davis – College of Engineering  
Davis, CA

*April 2016 – October 2016*

- Administered technical support to full biomedical engineering faculty and graduate student body.
- Resolved over 200 tickets as first point of contact, reducing overall ticket wait time by over 50%.
- Worked with two technicians to repair AV equipment, faulty computers, hard drives, and printers.

## PROJECTS

**Autonomous Vehicle Senior Design Project**

*September 2017 – Present*

- Building a self-driving race car in a group of four for a nation-wide competition using power MOSFETs, low-dropout voltage regulators, a servo motor, a DC motor, and a bluetooth controller.
- Programming an OpenMV M7 Camera microcontroller in Python to detect the race track, avoid obstacles, and generate PWM output signals to control a servo in order to automate car steering.
- Manufacturing a custom 2-layer printed circuit board and corresponding Bill of Materials on Eagle.

**Verilog FPGA Traffic Light Controller**

*April 2017 – June 2017*

- Developed a traffic light simulation that is controlled using an Altera DE-10 Lite FPGA board.
- Designed a finite state machine using Verilog to implement flip-flops, registers, and counters.

**Multicolor LED Greek Letter Banner**

*April 2016 – June 2016*

- Constructed a banner's circuit schematic that displays Greek letters using soldered LED components, which are controlled using a Bluetooth remote.
- Used during recruitment week and events to showcase past fraternity engineering projects.

**MATLAB Video Processing Player**

*January 2016 – March 2017*

- Coded a video player with working GUI with the ability to search for video files from computer with buttons for play/pause, stop, forward, back, a real-time scroll bar and an RGB histogram.

## LEADERSHIP

**Vice President, External Relations Chair** | Theta Tau – Professional Engineering Fraternity  
Davis, CA

*June 2016 – June 2017*

- Oversaw new member initiations, officer elections, and weekly meetings of over 40 members.
- Communicated with National Office board members to organize a UC Davis Western Regional Conference, where over 100 student members from 13 chapters attended.
- Enforced risk management, maintained conflict mediation, and hosted team-building events.