# Jaap de Dood

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#### Education

Bachelor of Science, Electrical Engineering, California State University, Long Beach, CA

August 2015 - Present

Anticipated graduation: Spring 2019

Current GPA 3.9/4.0

**Relevant Courses:** Analog Circuits I/II, CMOS VLSI Design, Mixed-Signal IC Design, Microprocessors I/II, Control Systems, Communication Systems, Digital Signal Processing, Digital System Design, MATLAB.

## **Project Experience**

### **Projects**

- IoT waste data collector "Trash sCan".
  - Won 1<sup>st</sup> prize "Best IoT Hack" at UCSB Hackathon.
  - Worked on data parsing software and hardware interface for Qualcomm DragonBoard™ (C++/Python/Bash).
- Micromouse autonomous robot competition.
  - O Designed schematic and PCB layout for two generations.
  - Wrote flood fill pathfinding algorithm using stack instructions (C++).
  - Developed robot software for Tensilica Xtensa Architecture.
- Solar kiosk mobile energy project.
  - o Received \$2500 grant from IBM Students for a Smarter Planet.
  - Won 1<sup>st</sup> place in CSULB Green Generation Mixer Project Showcase.
- 3DoT development board design with Professor Gary Hill.
  - Debugged hardware using oscilloscope and other lab equipment.
  - Made design improvements in reliability and PMIC circuitry based on debugging results.

## **Student Organizations**

- Institute of Electrical and Electronics Engineers (IEEE) Student branch president.
  - Leading "SophEE" project teaching sophomore Electrical Engineering students essential EE skills.
    - SophEE topics: Schematic and PCB layout, SMD/reflow soldering, programming a Wi-Fi robot using Arduino C++.
- Engineers for a Sustainable World (ESW) Projects and Webmaster.
  - Partake a leading role in developing and presenting projects.

## **Work Experience**

#### California State University, Long Beach

Long Beach, CA

Supplemental Instruction Leader

August 2017 - Present

- Plan and hold classes in calculus to provide a collaborative peer-learning experience to improve understanding of subject content, foster critical thinking, and strengthen study skills.
- Improved student grades by an average of 5% in class of 21 students compared to 135 course students.

#### **Penguin Air Conditioning and Solar Heating**

Almancil, Portugal

STEM Co-op

May 2013 - June 2013

Learned from engineers and technicians while installing solar and heat pump systems.