



# Adnan Dzebic

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## EDUCATION

### SAN JOSÉ STATE UNIVERSITY

BS IN ELECTRICAL ENGINEERING  
Expected May 2016 | San José, CA

### PERALTA COLLEGES

AS IN MATHEMATICS  
Fall 2014 | East Bay, CA  
Conc. in Computer Information Systems  
Dean's List (Four Semesters)

ALL COLLEGES GPA: 3.10 / 4.0

## LINKS

Github:// [adnandzebic](#)  
LinkedIn:// [adnandzebic](#)

## COURSEWORK

### CURRENT SEMESTER

Electronic Design + Lab  
Microprocessor System Design + Lab  
Physical Electronics

### PREVIOUS SEMESTER

Digital Logic Circuit Design + Lab  
Signal Processing  
Circuits and Systems

## SKILLS

### PROGRAMMING

Over 5000 lines:  
C • C++ • MATLAB • Python • Java  
C# • Shell • HTML5/CSS3 •  $\text{\LaTeX}$   
Over 1000 lines:  
ARM® Assembly • Verilog • JavaScript  
PHP • SQL • Julia • Rails • Django  
SimpleCV • OpenCV  
Familiar:  
VHDL • Clojure • Go • Objective-C

## AFFILIATIONS

2015 IEEE Member  
2015 SCE Member  
2015 SJSUARC Member  
2014 PEMS Officer/Coordinator  
2013 LCC Member

## SKILLS

### HARDWARE

- Good grasp on digital logic design fundamentals
- Familiar with EDA and CAD tools like gEDA, KiCad and DipTrace
- Circuit simulation using open source and closed source software (LTSpice, Ngspice)
- Experience with FPGAs and the accompanying design software (Xilinx ISE)
- Involvement with printed circuit board design software
- Comfortable with lab tools like oscilloscopes, function generators, multimeters, soldering tools, etc.

### SOFTWARE

- Fluent in Linux (Arch Linux and Linux From Scratch) and the Command Line Interface
- Uses open source software daily (VIM, OpenSSH, LyX, etc.)
- Experience with multi-threaded and object-oriented programming
- Able to create a skin-based website with client-server communications
- Familiar with web frameworks (Django, Ruby on Rails, Zend Framework, etc.)
- Comfortable with using Git and capable of writing presentable code/documentation using  $\text{\LaTeX}$
- Passionate to acquire new skills that improve my productivity

## ACADEMIC PROJECTS

### IMPLEMENTATION OF DIFF EQNS | USING OP AMPS AND SPICE

February 2015 | San José, CA

Created op amp based circuits of systems described by mathematical models. This included the Hindmarsh-Rose model for neural activity that contains three coupled differential equations for modeling the bursting behavior of neurons.

### DESIGN OF BANDPASS FILTERS | USING MATLAB

November 2014 – December 2014 | San José, CA

Worked with Devin Pérez and Prof Birsén Sirkeci to create FIR filters and apply them to sample signals for decoding and encoding purposes. The signals were processed in MATLAB using frequency domain analysis where the amplitude gain of the output signals were processed carefully.

### DESIGN OF TRAFFIC SIGNAL CONTROLLER | USING LOGIC CIRCUITS

December 2014 | San José, CA

Developed mostly from scratch using flip-flops and some additional logic gates. It required an understanding of Finite-state machines and more specifically, Moore machines.

### DESIGN OF 4-BIT COMPARATOR | USING FPGAs AND VERILOG

November 2014 | San José, CA

This project was done using the Verilog hardware description language in Xilinx ISE and a Spartan 3E Development FPGA board from Digilent Inc.

### OFF-GRID PHOTOVOLTAIC SYSTEM | USING SOLAR CELLS

January 2013 - August 2013 | East Bay, CA

Worked with a student-team of engineering students to design an off-site solar charging station that provides students with a source of electricity to charge small personal electronics in areas where conventional electrical outlets are not available. Solar tracking algorithm and mechanical system designed in conjunction with LCC.