

ANTON BILBAENO

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EDUCATION

Portland State University

M.S. Computer Science

April 2018 - expected 2022

Oregon State University

B.S. Electrical & Computer Engineering

September 2008 - June 2013

TECHNICAL STRENGTHS

Computer Languages Electrical Engineering Libraries & Tools

C, Python, Javascript, HTML, CSS, \LaTeX
Analog & Digital Circuit Design, PCB Manufacturing, Firmware
KiCad, Eagle, SPICE, OpenSCAD, Inkscape, bash, git, vim, tmux,
numpy, pandas, selenium, 3D printing (*new: Django, Vue*)

EXPERIENCE

Folktek

July 2016 - Present

Lead Electrical Engineer

- Take designs from concept to manufacturing. Responsible for all communication with manufacturer.
- Create new analog and digital functions; modify existing designs.
- Apply advanced PCB layout techniques to reduce noise in mixed-signal designs.
- Firmware for capacitive touch, sampling, motor control, basic logic, computations & clock outputs.
- Leverage open-source tools & KiCad EDA Python API to decrease time spent on: BoMs, assembling prototype boards, creating schematics, PCB placement, PCB routing & generating manufacturing files.
- Design (OpenSCAD) a 3D printed drill bit to cut assembly time by an order of magnitude.
- Hire and grow team size by roughly 3x over a year.

Cinder Solutions

July 2013 - July 2016

Electrical Engineer

- Primary Role: electronics hardware design (breadboard, schematic, layout, in-house SMT rework)
- C firmware for prototype μ -controller applications (motor ctrl, low speed digital comm, BT, IMUs).
- Few Python test automation projects: collection, parsing and analysis of IMU data; plot generation; r/w via sockets, Serial ports, Excel docs; mounting USB devices; automating website interactions.
- Python module to generate parametric touch-screen PCB from a configuration file to speed iteration.

Oregon State University

June 2011 - June 2012

Undergraduate Research Assistant

- Write basic Verilog for FPGA to initialize other hardware, implement memory blocks and buffers.

Sunset High School

June 2006 - June 2008

Website Design & Administration

- Design and maintain lacrosse team's website. Originally written in plain HTML.

Various Restaraunts & Kitchens

2005 - 2012

Busser, server, kitchen prep

- I list this experience because these positions teach you to move fast and constantly re-evaluate efficiency.

RELEVANT COURSEWORK

Computer Science

Data Structures
Discrete Math
Comp. Org. & Assembly
Computer Networks
Programming Languages
Algorithms
Numerical Computation

Electrical Engineering

Analog Electronics
Digital Logic Design
Signals & Systems
Transmission Lines
Power Electronics
Elec. & Mag. Fields
Magnetics
Antennas & Propagation
VLSI Design

Mechanical Engineering

3D Modeling
Statics, Dynamics, Strengths
Control Systems

Math

Calculus III
Vector Calculus II
Applied Differential Eqs.
Statistics
Matrix & Power Series

Other

Engineering Economy
Manufacturing Processes
Technical Writing
Sustainability
Macroeconomics

ACADEMIC ACHIEVEMENTS

Oregon State University Honor Roll

2010, 2011

EXTRA-CURRICULAR

Portland Startup Weekend (1st Place)

2014, 2015

OTHER INTERESTS

Agriculture, Food Systems
Learning, Education Systems
Sound, Music
History, Philosophy