

Benjamin Park

Electrical Engineering Student

WORK EXPERIENCE

City of Springfield, OR, Seasonal Maintenance Worker

JUNE 2018 - SEPTEMBER 2018

Operated city vehicles to transport equipment to job sites in the field.
Worked in teams to perform landscaping and other maintenance tasks on various city-owned properties

EDUCATION

Oregon State University, Corvallis, OR

SEPTEMBER 2017 - PRESENT

Pursuing a B.S. in electrical engineering. 3rd year at OSU, currently taking upper-division coursework

TEAM PROJECTS

Audio Visualizer

OCTOBER 2019

Used an Arduino Uno with a condenser microphone drive circuit to compute the FFT of an incoming audio signal and visualize the signal's frequency bands using 12 individually-driven LEDs

PID Servo Motor

NOVEMBER 2019

Used an Arduino Uno and an L293 motor controller to make a regular DC motor into a servo motor using a virtual PID loop

FPGA Music Box

DECEMBER 2019 - PRESENT

Creating an interactive box with the ability to record sound and play it back by using a FPGA-based FFT circuit to drive a square-wave oscillator and interfacing with memory

SKILLS

Circuit analysis (KVL, KCL)

Nonlinear circuit analysis
(MOSFET, BJT)

Signal processing

Combinational and
sequential logic design

Discrete mathematics,
differential equations,
matrices, power series,
advanced algebra, probability
and calculus

Circuit assembly (soldering)

C, C++, Systemverilog

Object-oriented
programming and data
structures

Basic physics (kinematics,
Newton's laws, energy,
incompressible fluid
dynamics, electric and
magnetic fields)

Experience with KiCAD,
LTSpice, Quartus Prime,
Eagle, Modelsim