

Junwon Lee

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Education

[Olin College of Engineering - Recipient of 4 year Half-Tuition Scholarship](#)

Expected Graduation: May 2021

B.S. in Electrical and Computer Engineering, GPA: 3.83

Relevant Coursework: Signals and Systems, Machine Learning, Intro to Analog & Digital Communication, Controls, Discrete Math, Partial Differential Equations, Data Structures & Algorithms, Intro to Microelectronic Circuits, Dynamics

Experience

[General Motors](#)

Milford, MI

Associate Systems Integration Engineer

June 2020 – Aug. 2020

- Develop CAN data processing tool that detects user-defined message, logic triggers, and DTC info using python
- Design and create python tool that autonomously processes continuously uploaded CAN data

[BYTON North America Corporation](#)

Santa Clara, CA

Intern – E/E Systems & Integration Validation

May 2019 – Aug. 2019

- Design portable, NMEA0183 compatible GPS logger to test vehicle GPS antennas and their signals
- Design test bench and 100+ custom cable harnesses for Over-The-Air testing
- Produce system level test cases for vehicle power modes and power rails using Excel

[Olin Electric Motorsports \(Formula SAE Electric Team\)](#)

Needham, MA

Electrical Subteam Member

Aug. 2019 – May 2020

- Design and write firmware for PCB that measured tire temperature with infrared sensor

Transmission & Cooling Subteam Lead

Sept. 2017 – May 2019

- Design efficient water cooling and drivetrain system in the vehicle using Solidworks
- Develop simulation for coolant temperature and forces acting on drivetrain system using MATLAB
- Conduct experiments and analyze data on cooling power and flow rate of coolant across the system

[Olin College of Engineering](#)

Needham, MA

Teaching Assistant – Engineering System Analysis

Jan. 2020 – May 2020

- Assist students learn concepts in linear systems theory, such as linearization, transfer functions, and stability.

[Olin Conductorless Orchestra](#)

Needham, MA

Head Transcriber

Sept. 2018 – May 2020

- Create editable music files from original orchestra scores for re-orchestration
- Revise original scores on music files to accommodate unbalanced choirs of instruments

Projects

[Sentiment Analysis of Korean Blog Comments](#)

Nov. 2019 – Dec. 2019

- Evaluated the capability of Korean corpus to assess the sentiment of the blog comments in Korean website
- Designed Naïve Bayes model and measured its accuracy in detecting negative blog comments using Python

[Audio Steganography](#)

Feb. 2019 – May 2019

- Studied various audio steganography techniques to encode simple text messages into audio files
- Created original algorithm that protects messages in audio files from filters and noises using MATLAB and Python

[Polygraph Project](#)

Dec. 2017

- Designed and built a polygraph consisted of thermal sensor, electrocardiogram, & RC band-pass filters
- Calibrated sensor and analyzed filtered data using Analog Discovery and MATLAB

Skills

[Programming languages](#): MATLAB, Python, C, HTML

[Software](#): Github, Arduino, LTspice, KiCad, Solidworks, Vehicle Spy, Adobe Audition, Microsoft Office

[Tools and Machines](#): Soldering, Oscilloscope, Mill, Lathe, Laser cutter, 3D printing, Sheet metal tools

[Foreign Language](#): Korean (fluent), Japanese (proficient)