Ajin Sunny

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LinkedIn: linkedin.com/in/ajinsunny   **GitHub:** github.com/ajinsunny   **Leetcode:** leetcode.com/4j1n/

TECHNICAL SKILLS

- **Software:** Python, C++, C, MATLAB, Embedded Linux, JavaScript, SQL, HTML5, CSS3, Git
- **Hardware:** ARM, Arduino, FreeRTOS, ESP8266, DAC, SPI, I2C, Autodesk Fusion 360, CNC

WORK EXPERIENCE

University of Kentucky | Embedded Software Engineer, Graduate Research | Lexington, KY   Jan 2018 - Dec 2019

- Programmed and built the software pipeline in C++ that ran a decentralized control algorithm for the electromagnetic system of a small satellite with a steady-state error of approximately 0%.
- Developed the decentralized control algorithm that measured the relative position and velocity of the prototype using LiDar sensors and PIC microcontrollers with a measurement accuracy of ± 3%.
- Reviewed C++ code for sinusoidal actuation and developed a custom actuation technique with new changes submitted for the decentralized control algorithm.
- Acquired, tested, and analyzed 100+ experimental data sets using Python, Numpy, Matplotlib, Seaborn, MATLAB, and Github that contributed to achieving a final steady-state error of approximately 0%.

University of Kentucky | Mechanical Engineering, Graduate Teaching | Lexington, KY   Aug 2017 - May 2018

- Assisted and proctored with 2 professors for grading homework assignments for 95+ students for 2 semesters; tutored students for a 1-on-1 session on controls engineering courses.

University of Kentucky | Electrical Engineer | Lexington, KY   Aug 2013 - Aug 2015

- Prototyped 50+ PCBs for the Battery Management System (BMS) of the car utilizing soldering equipment.
- Performed data acquisition and analysis using Python for battery temperature, battery voltage, battery current which helped in maximum power point tracking of the solar cells.
- Tested the power circuit of the solar array using a digital multimeter, oscilloscope, and verified the cell parameters using software such as MS Excel and Numpy plots.

EDUCATION

Master of Science in Mechanical Engineering, *University of Kentucky*   Dec 2019
Bachelor of Science in Electrical Engineering, *University of Kentucky*   May 2017

PROJECT WORK

Udacity | Software Engineering Student   2020
Online Learning Platform for industry professionals to pursue life-long learning of the chosen industry path.

- Completed Introduction to Tensorflow for Deep Learning and Introduction to Computer Vision.
- Pursuing the Self-Driving Car Engineer Nano Degree program: Completed Lane Finding Project for a self-driving car.

Education - Google AI | Software Engineering Student   2020
Online Learning platform for anyone to learn the fundamentals to develop Machine Learning skills.

- Completed Machine Learning Crash Course with TensorFlow APIs to develop machine learning projects.
- Developed skills such as Image Classification, Transfer Learning, NLP: Tokenization and Embeddings and Recurrent Neural Networks(RNN), Convolutional Neural Networks(CNN).

Codecademy Data Science | Data Scientist | live   2019
Online Data Science program for Python developers to learn within a community of Software Engineers.

- Pursued foundational data science and data visualization concepts to understand machine learning.
- Visualized World Cup data using Matplotlib and Python's Seaborn packages to gain insights on football trends.
- Compared survey responses of election results with actual results using Numpy to determine the variance.

LEADERSHIP + AWARDS

Graduate Assistantship, *University of Kentucky*   2017
IEEE 24 hour Extreme Competition, *University of Kentucky*   2014
IEEE Student Paper Competition, *University of Kentucky*   2013