
Education

Jan 2021- Present

M.S. in Computer Science, Georgia Institute of Technology – Atlanta, GA

- GPA of 4.00 – Degree expected in 2024
- Specialization in Machine Learning (courses: deep learning, ML, analytical modeling, HCI, info sec, networks)

Aug 2013 – May 2017

B.S. in Mechanical Engineering, Colorado School of Mines – Golden, CO

- GPA of 3.85 – Graduated Magna Cum Laude

Experience

Jun. 2022 – Jan, 2024

Application Engineer, Robert Bosch – Plymouth, MI

Responsibilities:

- Was an ADAS application engineer focusing on L3 and L4 AV localization at a tier one automotive supplier.
- Integrated target and reference AINS instrumentation as well as data measurement equipment into test vehicles.
- Developed and maintained software to facilitate data acquisition and live vehicle demonstrations.
- Performed test drive maneuvers, vehicle calibration, and coordinated endurance runs with drivers.
- Supported customers in application topics including those relating to GNSS and IMU's.

Apr. 2019 – Jun. 2022

Vehicle Optimization Engineer, General Motors – Warren, MI

Responsibilities:

- Was a simulation engineer in vehicle optimization methods team at a domestic automaker.
- Coordinated with a variety of engineering discipline groups to translate their requirements into optimization plans.
- Developed Python, Shell, and MATLAB scripts to automatically conduct design of experiments of CAE models.
- Interpreted experiment data using statistical methods such as fitting response surfaces and performing ANOVA.
- Fitted non-parametric regression models for internal customers with larger engineering datasets.

Achievements:

- Made tool for NASCAR team that could classify team's photos by driver using obj. detection (YOLO/OCR).
- Saved company \$1.5 million in project that stewarded DOE, data analysis, and optimization of a V8 engine block.
- Reduced heat loss of EV motor design by 8% by optimizing on Kriging RSM (after automating EM process for data).
- Developed program to optimize seat foam comfort by reassigning 3D point cloud data.

Sept. 2017 – Apr. 2019

Product Engineer, Gestamp – Auburn Hills, MI

Responsibilities:

- Developed passive crash management products within a tier one automotive supplier.
- Lead design of bumper systems and supported design of Battery Electric Vehicle (BEV) battery tray structures.
- Verified products met insurance and government regulations for low and high-speed crash with CAE simulation.
- Administrated CAE team's Linux-based HPC (Debian, PBS)
- Delegated roles between designers, simulation engineers, and assembly teams during larger projects.

Achievements:

- Developed program/dashboard that screened factory data logs to identify problematic stamping dies.
- Developed company best-practice for energy absorber design considering impact direction variation.

Software

Languages: Python, R, Shell (Bash), MATLAB, SQL

Libraries/Tools: SciPy, Scikit-Learn, Plotly, PyTorch, Tkinter, Conda, GIT, IBM LSF

Certifications

Apr 2021

Design for Six Sigma (DFSS) Black Belt

Accreditation in methodology to translate customer requirements into a product design using statistical tools.