Kougar Lott

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Experience

Jun. 2022 – Jan 2024 **Application Engineer, Bosch** – Plymouth, MI

Responsibilities:
- Worked in advanced driver assistance system (ADAS) team focusing on vehicle localization.
- Integrated L3 and L4 autonomous target (product) and reference (ground truth) sensors into vehicles.
- Developed software for data acquisition and live vehicle demonstrations using C and Python.
- Ensured network connectivity between modules over IP and CAN with Vector equipment and ROS.
- Supported customers in application topics including those relating to GNSS and IMU's.

Apr. 2019 – Jun. 2022 **Optimization Engineer, General Motors** – Warren, MI

Responsibilities:
- Was an engineer in GM's simulation organization specializing in cross-functional data science projects.
- Developed software to facilitate experiments via automation and build training datasets on an HPC.
- Built unsupervised learners for sensitivity studies or dimensionality reduction.
- Built supervised regression learners to create meta-models that could be optimized on.

Achievements:
- Made CV tool for NASCAR team that could tag team vehicles in photos using obj. detection and OCR.
- Developed EV design dashboard that predicted energy performance; weeks of work became seconds.
- Saved company $1.5 million in project that optimized company's truck engine casting shape.
- Reduced heat loss of EV motor by 8% in project that optimized its rotor and stator laminations.
- Developed program to optimize seat foam comfort by reassigning 3D point cloud data.
- Credited for multiple company trade secrets involving ML application to CAE methods.

Sept. 2017 – Apr. 2019 **Product Engineer, Gestamp** – Auburn Hills, MI

Responsibilities:
- Designed crash management products within a tier one automotive supplier.
- Administrated computer aided engineering (CAE) team's Linux-based HPC cluster.
- Used CAE simulation to verify products met regulations for low and high-speed crash.

Achievements:
- Developed program that screened factory data logs to identify high-cost stamping die designs.
- Developed company best-practice for energy absorber design considering impact direction variation.

Education

Jan 2021 – Aug 2024 **M.S. in Computer Science, Georgia Institute of Technology** – Atlanta, GA

- GPA of 3.90 – Specialization in Machine Learning

Courses:
- Machine Learning, Deep Learning, Reinforcement Learning, Analytics Modeling, ML for Trading
- Algorithms, Operating Systems, Computer Networks, Human-Computer Interaction, Info Security

Aug 2013 – May 2017 **B.S. in Mechanical Engineering, Colorado School of Mines** – Golden, CO

- GPA of 3.85 – Graduated Magna Cum Laude

Software

Languages:
- Python, Shell (Bash), C, R, SQL

Libraries/Tools:
- PyTorch, SciPy, Scikit-Learn, Pandas, Matplotlib, Seaborn, Plotly, Tkinter, GIT, Docker

Cloud/HPC:
- AWS, Altair PBS, IBM LSF