

COLTON PEFFER

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EDUCATION 2020 – 2024	UNIVERSITY OF MICHIGAN College of Engineering Bachelor of Science in Computer Science, May 2024 <ul style="list-style-type: none">• Minors: Business Administration; Entrepreneurship• GPA: 3.86/4.00 Summa Cum Laude• Courses: Advanced Operating Systems, Web Systems, Human-Centered NLP Machine Learning, Machine Learning in Investing, Data Structures and Algorithm	Ann Arbor, MI
EXPERIENCE Sept 2024 – Present	Ford Motor Company Software Engineer <ul style="list-style-type: none">• Contributed to full-stack development of an e-commerce web application using React, TypeScript, and Spring Boot, contributing to over \$500M in sales with 13,000 Model E vehicles sold across North America after launch in 2024• Led the modernization of API infrastructure, automating daily tasks and decreasing probability of rebilling, and implementing dynamic Spanish language translation, thereby expanding application accessibility to 240 additional dealers in Mexico• Demonstrated leadership and communication skills by leading team retrospectives to address burnout and developing a rotational program for new hires, enhancing team integration and reducing overall team anxiety	Dearborn, MI
2023 Summer	Ford Motor Company Software Engineering Intern <ul style="list-style-type: none">• Collaborated with interns, senior engineers, and stakeholders to transform a survey tool into a sleek website using full-stack development• Crafted sustainable code through integration tests, test driven development, and agile development practices	Dearborn, MI
2018 – 2023	Self Employed Private Tutor <ul style="list-style-type: none">• Delivered personalized tutoring to 15+ middle and high school students across subjects like AP Physics, AP Computer Science, and Mathematics, as well as SAT, ACT, HSPT, and ISEE prep, crafting tailored lesson plans that led to notable improvements in grades and test scores	Remote Work + Los Angeles, CA
PROJECTS	Machine Learning Moral Analysis Paper <ul style="list-style-type: none">• Coauthored a research paper investigating the ability of ML models to predict human morality based solely on textual data from the Reddit community r/AmItheAsshole using Python and Great Lakes High Performance Computing Cluster• Developed and implemented machine learning models, including logistic regression, random forest, and deep learning techniques such as BERT fine-tuning and Bidirectional GRU Networks, to classify posts, achieving high accuracy in predicting community judgments• Conducted feature engineering and selection using methods like Doc2Vec, LIWC, and PCA to identify significant linguistic patterns influencing moral judgment predictions Machine Learning for Predicting Abnormal Stock Returns <ul style="list-style-type: none">• Implemented advanced machine learning models, including LASSO regression, decision trees, random forest, and gradient boosting, to identify stocks with high positive abnormal returns relative to the S&P 1500 index• Analyzed feature importance and tuned hyperparameters through dataset splitting and out-of-sample testing to mitigate overfitting and enhance model robustness in stock return predictions	
TECHNOLOGIES	React, TypeScript, Kotlin, Spring Boot, GCP, C++, Python, PyTorch, Pandas, Sklearn	
ADDITIONAL	Avid soccer player and fan, a dedicated reader of mostly nonfiction, a chess enthusiast (around 1300 Elo), an intermediate guitarist, and a passionate cook	