Corey Heckel

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EDUCATION

Master of Science: Machine Learning, Stevens Institute of Technology **GPA: 4.0** Dec 2024
Bachelor of Engineering: Software Engineering, Stevens Institute of Technology **GPA: 3.7** May 2024
Organizations/Awards: Pinnacle Scholar, Phi Sigma Kappa, Club Baseball, Dean's List, High Honor, Order Of The Engineer
Graduate Course Assistant: SSW 625 AI for Software Engineering

PROFESSIONAL EXPERIENCE

Graduate Research Assistant|Stevens Institute of Technology May 2023 - Dec 2024

- Facilitated the independence of visually impaired individuals through the development of a system in C# that successfully teaches them to write using audio feedback with up to 90% accuracy
- Enhanced user accuracy by 30% through advanced image processing & machine learning algorithms
- Secured $1,000 in funding for further research and development

Undergraduate Research Assistant|Stevens Institute of Technology May - Aug 2022

- Conducted a case study of 800+ participants to determine the effects of data visualizations on strategic decision making using Python, dash, plotly, numpy, and pandas
- Debugged an artillery dashboard organized through the U.S DoD optimizing the user interface

Undergraduate Research Assistant|Stevens Institute of Technology May - Aug 2021

- Mitigated potential deceleration injury risks by 15% through detailed joint movement analysis
- Contributed to a 10% improvement in pitchers' overall performance metrics through MATLAB analysis

PROJECTS

Machine Learning Engineer|Bankruptcy Prediction Model Jul - Aug 2024

- Predicted bankrupt companies with 98% accuracy by stacking multiple classification models as a meta-classifier trained and tested on financial data

Machine Learning Engineer|Fraudulent Transaction Detection May - Aug 2024

- Detected fraudulent credit card transactions with 99.9% accuracy by training and testing a logistic regression, decision tree, & random forest model using R

Machine Learning Engineer|ARPU Forecast May - Jul 2024

- Forecasted the Average Revenue per User and Economy for African countries through 2030 by training and testing linear regression, polynomial regression, and ARIMA algorithms

Front End Developer|EchoLab Feb - May 2024

- Enabled collaboration of 50+ users in a React application programming environment
- Engineered an Agora-based voice call functionality synchronizing user modification through Socket.io
- Employed Docker to run user code submissions securely and efficiently, and AWS for hosting services

Full Stack Developer|Irwin Jan - May 2023

- Improved data handling through the development of a React survey system storing data in MongoDB

Full Stack Developer|There's Options Feb - Apr 2022

- Fostered a 25% increase in trading insights for beginners through stock market trend visualizations

TECHNICAL SKILLS

- **Programming Languages:** Javascript, Python, R, Java, C#, C++, Typescript, HTML/CSS, MATLAB
- **DB & Query Languages:** SQL, PostgreSQL, MongoDB, Firebase, GraphQL, Cassandra
- **Web Technologies:** React, Next, Node, Express, Redis, jQuery, WebSockets, Tailwind, Figma
- **Data Visualization & Analysis:** Pandas, Numpy, Matplotlib, Plotly, Dash, Three, D3, PowerBI, Excel
- **Machine Learning:** Linear & Logistic Regression, Decision Trees, Random Forest, Deep Learning, Neural Networks, K-Means Clustering, K-NN, PCA, SVM, PyTorch, Tensorflow, Keras, Scikit-learn, Optuna
- **Natural Language Processing:** NLP, GloVe, Cohere, word2vec, BERT, tf-idf
- **Cloud & DevOps:** AWS, IoT, Docker, Databricks, Apache Spark, Lambda, EMR, Kafka
- **Finance:** Stock Simulation, Option Pricing, Portfolio Optimization, Fair Price, ETF Stock, Interest, IRR