Corey Heckel

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TECHNICAL SKILLS

- **Programming Languages:** Javascript, Python, R, Java, C#, C++, Typescript, HTML/CSS, MATLAB
- **DB & Query Languages:** SQL, PostgreSQL, MongoDB, Firebase, GraphQL
- **Web Technologies:** React, Next, Node, Express, Redis, jQuery, WebSockets, Tailwind
- **Data Visualization & Analysis:** Pandas, Numpy, Matplotlib, Plotly, Dash, Three, D3, PowerBI
- **Machine Learning:** Linear & Logistic Regression, Decision Trees, Random Forest, Deep Learning, Neural Networks, ARIMA, Time Series, K-Means Clustering, K-NN, LDA, SVM, PyTorch, Tensorflow, Keras, Scikit-learn
- **Testing & Quality Assurance:** JUnit**,** CircleCI, Postman, PyLint, Coverage
- **Documentation:** Overleaf, LaTex, Lucidchart, UML, Requirements Analysis, Jupyter
- **Software & Tools:** AWS, IoT, Docker, Git, Unity, Figma, Excel, Solidworks, Agile, Jira
- **Finance:** Stock Simulation, Option Pricing, Portfolio Optimization, Fair Price, ETF Stock, Interest, IRR

PROFESSIONAL EXPERIENCE

Lead Full Stack Engineer|SonicScript
May 2023 - Present

- Facilitated the independence of visually impaired individuals through the development of a system 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.

Associate Dashboard Developer|ART-022
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**.

Associate Data Analyst|MLB Pitching Analysis
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.

EDUCATION

Master of Science: Machine Learning, *Stevens Institute of Technology*   **GPA: 4.0**
Bachelor of Engineering: Software Engineering, *Stevens Institute of Technology*   **GPA: 3.723**
Organizations/Awards: Pinnacle Scholar, Phi Sigma Kappa, Club Baseball, Dean's List, High Honor, Order Of The Engineer

PROJECTS

Machine Learning Engineer|Fraudulent Transaction Detection
May - Present

- **Detected** fraudulent credit card transactions with **96%** accuracy by **training** and **testing** a **logistic regression** model using **Python**, and **scikit-learn**.

Machine Learning Engineer|ARPU Forecast
May - July 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.

Web Developer|Student Course Review Website
Oct - Dec 2023

- Empowered users to leave reviews of courses offered at their university utilizing **bootstrap** interfaces

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**