

Corey Heckel

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TECHNICAL SKILLS

- **Programming Languages:** Javascript, Python, C#, C++, Java, R, Typescript, HTML/CSS, MATLAB, Arduino
- **DB & Query Languages:** SQL, MySQL, PostgreSQL, MongoDB, Firebase, GraphQL
- **Web Technologies:** React.js, Node.js, Flask, Express.js, Phaser, jQuery, Axios, APIs, AJAX, Angular, Sockets.io, Bootstrap, Redis, Gulp, Next.js, Vue.js, Tailwind, PeerJS, Agora
- **Data Visualization & Analysis:** Plotly, Pandas, Numpy, Dash, Three, D3, Mokka
- **Machine Learning:** NNs, Linear & Logistic Regression, Decision Trees, Deep Learning, Gradient Boosting, K-Means Clustering, K-NN, Bayesian Learning, PyTorch, Tensorflow, OpenCV, Vuforia, Keras, Scikit-learn
- **Testing & Quality Assurance:** JUnit, CircleCI, Postman, PyLint, Coverage, Jira
- **Documentation:** Overleaf, LaTeX, Lucidchart, UML, Requirements Analysis
- **Software & Tools:** AWS, IoT, Docker, Github, GitLab, Unity, Figma, AR, GIMP, Excel, Solidworks, Labview, Agile
- **Finance:** Stock Simulation, Option Pricing, Portfolio Optimization, Fair Price, ETF Stock, Interest, IRR, Excel

PROFESSIONAL EXPERIENCE

Lead Full Stack Engineer | Sonic Script

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

Bachelor of Engineering: Software Engineering, Stevens Institute of Technology **GPA: 3.723** May 2024

Master of Science: Machine Learning, Stevens Institute of Technology **GPA: 4.0** May 2025

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 - Present

- **Forecasted** the Average Revenue per User for African countries through 2035 by **training and testing linear regression, polynomial regression, and gradient boosting 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**