Matthew O'Mara

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EDUCATION

New Jersey Institute of Technology   **Sept 2022 - May 2026**

B.S. Computer Science | Cumulative GPA: 3.50/4.0   *Newark, NJ*

- **Relevant Coursework:**
  - Data & ML: Data Science, Machine Learning, AI-Driven Text Analytics
  - Systems: Operating Systems, Computer Networks, Performance Modeling, Linux Programming, Cybersecurity Concepts
  - Software: Software Engineering Design, Database Systems, Advanced Data Structures & Algorithms
  - UX & Ethics: Designing the User Experience, Web Mining, Computers & Society
- **Dean's List:** Fall 2022, Fall 2023, Spring 2024, Spring 2025

TECHNICAL SKILLS

Languages: Python, JavaScript (ES6+), Java, C++, C, SQL, HTML, CSS, Bash

Frameworks & Libraries: React, Node.js, Express, Streamlit, Bootstrap, TensorFlow, scikit-learn, Pandas, NumPy, Matplotlib, Gradio

Databases: MySQL, MongoDB (if used in EcoNav/Cali)

Tools & Platforms: Git/GitHub, Docker, AWS, Firebase, Vercel, Render, Google Maps API, Leaflet, Mapbox

RELEVANT EXPERIENCE

MMRagdolls.com — *Full Stack Web Developer*   **Aug. 2023 - Present**

- Rebuilt and deployed a scalable website from scratch using JavaScript, React, and Node.js, transitioning from Squarespace to a fully custom-coded platform.
- Engineered and managed a reservation waitlist system that guarantees every litter is reserved in advance, reducing marketing costs by 60%.
- Integrated application forms with a cloud-hosted database, streamlining applicant tracking and automating business operations.
- Built a dynamic filtering system (color, pattern, gender) and optimized for responsive, mobile-first performance, boosting SEO rankings, organic traffic, and user engagement.

PROJECTS

EcoNav — *React, Node.js, Express, Google Maps API, Leaflet, EIA API*   **Jun. - Aug. 2025**

- Designed, developed, and deployed a full-stack web application that calculates trip gas costs using real-time traffic data, fuel prices, toll prices, and vehicle-specific MPG, integrating multiple APIs into a scalable cloud-based system.
- Implemented advanced route optimization features (fastest, shortest, fuel-efficient, cheapest, tolls on/off) with interactive map visualizations, improving usability and decision-making for drivers and gig workers.

Cali — *React, Firebase, Mapbox, Node.js, Express/REST APIs*   **Jul. 2025 - Ongoing**

- Developed a community-centered full-stack web application for locating and reviewing outdoor calisthenics gyms, featuring real-time geolocation with Mapbox polylines and user-submitted gym data.
- Implemented secure Firebase authentication, engineered REST APIs for submissions/reviews, and built Mapbox visualization tools to enhance usability

TrailSafe — *React, Node.js, Firebase, Mapbox, REST APIs, TensorFlow Lite*   **Aug. 2025 - Ongoing**

- Engineered a safety-focused hiking application with an intelligent SOS feature that performs real-time movement monitoring and anomaly detection, automatically escalating alerts to emergency contacts or authorities if users are unresponsive.
- Designed and deployed secure cloud-based backend services with Firebase to manage user authentication, profiles, and automated emergency alert workflows, ensuring reliability and scalability.

Data Analysis & Prediction App — *Python, Streamlit, scikit-learn, Pandas*   **Nov. 2024**

- Built an interactive ML web app with Streamlit that enabled dataset uploads, visualization, feature selection, and live regression model predictions through an intuitive UI, integrating a full ML pipeline.