

Gregory Glatzer

Email: gregoryg323@gmail.com
GitHub: www.github.com/g1776

LinkedIn: www.linkedin.com/in/gregory-glatzer
Portfolio: www.gregoryglatzer.com

Cell: (267)-229-6863

Education

The Pennsylvania State University, College of Information Sciences and Technology

August 2019 – May 2023

B.S. Applied Data Science, Cumulative GPA: 3.96 - Summa cum laude

Experience

Eartrainer-io – Frontend Developer

June 2023 – Present

- Built a student assessment tool that enables teachers to assess musical ability through a web-based music notation interface.
- Architected and implemented a TypeScript + NodeJS application that interacts with a ReactJS app, including webpack, ESLint, and Babel.js.

KCF Technologies – Software Engineer I

June 2022 – December 2022

- Commended by leadership for efficiency improvements by modernizing data entry and internal savings tracking through development of a React application utilizing Amazon Web Services Amplify, S3, Cognito, DynamoDB, and Power BI. The project saved employees hundreds of hours of data entry per year and was presented to C-Suite members to outline savings and ROI.
- Supported a major client's real-time data processing needs by delivering an ETL pipeline built with Node-RED, MQTT, and AWS EC2. This involved transforming data into API payloads and analyzing MQTT broker throughput to optimize data flow by batching and caching incoming payloads from IoT devices.
- Built Dockerized Python applications for the Data Integration and Edge Enablement agile development teams to support client-specific needs to move data between Industry 4.0 systems.
- Operated in the Azure DevOps platform to manage backlog items, code reviews, and build and test CI/CD pipelines in live production environments at scale. Managed large code bases using version control systems (git).
- Designed and implemented SQL and NoSQL databases in AWS that interacted with a full-stack application built in React.js.
- Utilized MQTT and Modbus communication protocols to deliver real-time payloads between systems.

Intonation Map Creator – Full-Stack Developer

January 2020 – January 2022

- Enabled musicians to visualize, track, and analyze their intonation by developing a full-stack NodeJS application with React.js, Express.js, Firebase authentication, Firebase NoSQL database, and custom visualizations built in D3.js.
- Consulted with professional musicians on best practices for collection, analysis, and visualization of domain-specific data.

Apoio (The Mental Health Project) – Frontend Developer

November 2020 – November 2021

- Led the design and development of the frontend for a Clinical Decision Support (CDS) tool to aid mental health professionals in the intake process. The tool is estimated to save data entry personnel 6 hours per day.
- Built a React.js webapp using the Material-UI set of UI tools and a custom-built GraphQL TypeScript API which communicated with the Azure backend to handle authentication and database reads and writes.
- Consulted with UI/UX professionals to implement best design practices and establish a consistent design philosophy.
- Won the "IBM Advantage" in the 2021 Nittany Data Challenge for best project in the Development Phase.

The Pennsylvania State University (Research) – Geospatial Data Scientist

May 2021 - November 2021

- Created insights for elephant experts and conservation researchers on the factors that affect elephant movement by applying DBSCAN and KMeans machine learning models on geospatial datasets of elephant movement in Africa.
- Published two research papers on the analysis of elephant movement in conservation conferences.
- Transformed data between spatial file formats and CSV. Developed pipelines to automate the processing of new datasets.
- Communicated results through weekly presentations and contributed creative problem-solving solutions.
- Created a data-driven dashboard to facilitate data exploration and extract insights through data visualizations.
- Demonstrated initiative and the ability to create self-driven work by independently learning and applying ML algorithms.

Publications

An Analysis of Elephants' Movement Data in Sub-Saharan Africa Using Clustering – First author

December 2021

- Presented at the Tanzania Wildlife Research Institute (TAWIRI) 13th Annual Scientific Conference in Tanzania, Africa.

A Socio-Ecological Approach to Understanding How Land Use Challenges Human-Elephant Coexistence in Northern Tanzania

June 2022

- Peer-reviewed publication in MDPI Diversity with co-authors in Africa and the UK.

Skills & Certifications

Skills

- Python, R, SQL, JavaScript, TypeScript, HTML/CSS, Java, C#/.NET, React.js, Flask, D3.js, git, Webpack
- AWS: S3, EC2, Cognito, Amplify
- Docker, CI/CD Pipelines, REST APIs, Postman, Microsoft Office
- MongoDB, Neo4j, Redis, DynamoDB, MySQL, Postgres

Certifications

- Agile at Work: Building Your Agile Team (LinkedIn Learning)
- Certified Data Scientist Level 1 Credential (General Assembly)
- Nittany AI Challenge 2020 and 2021 Finalists