

# Gregory Glatzer

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## Education

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**The Pennsylvania State University, College of Information Sciences and Technology**

**August 2019 – May 2023**

B.S. Applied Data Science, Cumulative GPA: 3.95

## Experience

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**KCF Technologies – Data Integration Intern**

**June 2022 - August 2022**

- Built a custom OPC server plugin in .NET which included unit testing, building executables, and debugging Windows processes.
- Constructed Node-RED flows to process real-time data from IoT devices at Ford via MQTT. This involved transforming data into API payloads, as well as analyzing MQTT broker throughput to optimize data flow by batching and caching incoming payloads.
- Utilized MQTT and Modbus communication protocols to deliver real-time payloads between systems.
- Operated in the Azure DevOps platform to perform daily PBIs, PRs, and navigate professional code.
- Assisted daily tasks on the Data Integration Team to support client-specific needs to move data between Industry 4.0 systems.

**Elephant Movement Research with IST Faculty – ML Researcher**

**May 2021 - November 2021**

- Applied DBSCAN and KMeans using sklearn, geopandas, and shapely to analyze elephant movement in Sub-Saharan Africa.
- Presented an overview of anti-poaching technology literature.
- Created a data-driven dashboard with streamlit, folium, and pandas to allow exploration of elephant movement analysis.
- Demonstrated initiative and the ability to create self-driven work by independently applying and learning ML algorithms.

**The Mental Health Project – Frontend developer**

**November 2019 – November 2020**

- Won the IBM Advantage in the 2021 Nittany AI Challenge in the Development Phase.
- Designed the interface and functionality for a mental health patient intake system that is estimated to save data entry personnel 6 hours a day.
- Developed a frontend web application using React.js and Material-UI, with an API written in TypeScript and GraphQL.
- Consulted with mental health professionals on pain points and best practices in application design.
- Iteratively improved the application based on meetings with UI/UX professionals on application design choices.

## Publications

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

**December 2021**

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

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

**June 2022**

## Leadership Experience

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**IST Diplomats**

**Spring 2020 - Present**

- Selected by Penn State College of IST faculty through a competitive application process
- Works closely with faculty, prospective students & parents, and current undergraduates
- Trained in conversation skills, self-awareness, professional development

## Skills & Certifications

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### Skills

- JavaScript, HTML/CSS, Python, SQL, R, .NET, Node-RED
- React.js, TypeScript, GraphQL
- Pandas, sklearn, Streamlit
- MongoDB, Neo4j, Redis

### 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