Kevin Hoffman

kevohoffman@gmail.com | (215) 970-4839 | Philadelphia, PA | www.linkedin.com/in/kemhoffman

EDUCATION

Ursinus College, Collegeville, PA   May 2023
B.S. in Computer Science, Artificial Intelligence   GPA: 3.99
Awards: Salutatorian, Phi Beta Kappa, Faculty Prize for Computer Science

EXPERIENCE

TDI Novus, Philadelphia, PA
Algorithm Engineer   Jun 2023 – Present
- Designed a real-time anomaly detection algorithm for harbor traffic by leveraging a Gaussian Mixture Model over multiple sensors describing historical marine patterns.
- Trained Support Vector Machine using BERT embeddings to classify the intent of VHF transmissions with 90% accuracy.
- Leveraged big data frameworks such as Spark to analyze and process streams of AIS data.
- Deployed OpenAI's Whisper model to better accommodate accented speech with over 95% accuracy.

NLP Intern   Mar 2022 – Jun 2023
- Implemented navigation planning algorithm in Python for on-water transportation to elevate the project to TRL 6. Subject matter experts evaluated the algorithm at 92% reliability.
- Developed NLP pipeline for extracting features in radio channel requests spoken over VHF radio to cover diverse grammatical structure with 89% accuracy.
- Constructed CI/CD pipeline with Docker and PyTest to streamline the process of software version control which quickly became adopted into production.

Verif-y, Philadelphia, PA
Machine Learning Intern   Jun 2021 – Sep 2021
- Automated academic transcript text extraction process via AWS Textract to reduce time spent on analyzing 1,000 transcripts from 5 hours to 45 minutes.
- Remodeled text extraction pipeline using AWS pipelines to complete data processing and storage 50% quicker.
- Presented weekly progress through formal reports to team alongside demonstrative figures and bolstered collective understanding.

RESEARCH

Lead Researcher, **NVIZ**, Professor William Mongan   Oct 2022 – Present
- Directed the deployment of a web application to make neural networks more accessible to the general population.
- Reimagined the visualization of neural networks through Sankey diagrams and demonstrated the *flow* of neural networks to general audience.
- Facilitated A/B testing of user ability to navigate the application and reduce cognitive load by 25%, measured by number of clicks to goal completion, through modern UI/UX techniques.

Research Assistant, **RFID Localization**, Professor William Mongan   Feb 2020 – May 2022
- Managed a team of 4 in implementing, documenting, and testing new antenna driver software to gain 20% more data resolution.
- Programmed visualizer to analyze signal strength of RF transmitter as position changed which was used for academic presentations.

SKILLS

Technical: AI/ML, Docker, Git, CI/CD, AWS, Google Cloud, Scrum/Agile
Programming Languages: Python, JavaScript, HTML/CSS, Java, R, C++
Spoken Languages: Spanish (Conversational)