

PROFESSIONAL EXPERIENCE

MED-METRIX, GARDEN CITY, NY

SOFTWARE DEVELOPER, JUNE 2023 TO PRESENT

- Significantly improved XGBoost classification model performance by refactoring, eliminating overnight model training, and boosting accuracy by 200%.
- Utilized proprietary language data to fine-tune Falcon-7b large language model (LLM) for writing insurance appeals, increasing accuracy from 80% to 90%.
- Developed data extraction pipelines with Airbyte's CDK to ingest FHIR resources into S3 buckets via custom connectors, facilitating database cloud migration.
- Designed an LLM workflow with LangChain for accurate patient medical record retrieval, creating dedicated FAISS vector stores for each patient, and generating appeal documents.
- Collaborated closely with legal experts to maintain HIPAA compliance in AWS development environments, ensuring data security when handling Protected Health Information (PHI).
- Produced data visualizations for classification model analysis, providing supervisors with key insights for informed decision-making.

ONEPOLICY LLC, BINGHAMTON, NY

SOFTWARE DEVELOPER, NOVEMBER 2022 TO MAY 2023

- Led the development of Next.js website prototypes to validate intricate technical solutions before full-scale implementation.
- Demonstrated adept project management abilities through the effective use of agile methodologies, including task prioritization and meticulous project timeline monitoring, ensuring on-time delivery of high-quality website updates.
- Translated business requirements into precise React Native technical specifications, seamlessly integrating web-app functionalities and managing third-party API interactions.
- Assumed leadership roles within the team when needed, providing guidance and mentorship to student developers.
- Analyzed successful tech solutions from industry leaders, identifying potential business opportunities and areas for revenue growth for the startup.
- Improved project execution by devising pragmatic strategies, enhancing internal communication, and aligning team expectations.

TJ RUSSO CONSULTANTS, ISLANDIA, NY

SOFTWARE DEVELOPER INTERN, JUNE 2022 TO AUGUST 2022

- Collaborated with a cross-functional team of 4 developers to create an NGINX-based live-streaming service, enhancing client outreach and engagement.
- Leveraged the Expo library to craft a prototype for a client live-streaming mobile app, facilitating the evaluation of potential solutions.
- Developed email templates that contributed to a 10% increase in client engagement.
- Produced and edited an instructional video tailored for non-technical personnel, showcasing new hardware and software features while illustrating their optimal usage.
- Effectively communicated technical concepts to non-technical colleagues, highlighting strong communication skills.
- Optimized the local infrastructure and conducted hardware upgrades, resulting in reduced technical issues and outages, safeguarding time-sensitive revenue streams.

KEY PROJECTS

LENDHAND, HACKBU 2023 SUBMISSION, FEB 2023

- Received the "Best Civic Engagement Hack" award, sponsored by J.P. Morgan, in recognition of outstanding contributions to the community.
- Earned the "Best Geo Hack" award, sponsored by CAE, for the development of an innovative geospatial application.
- Demonstrated strong leadership skills by leading a team of 3 to outperform 120+ participants in a 24-hour hackathon.
- Designed and developed a cross-platform community outreach mobile app with an Expo frontend and MongoDB backend.
- Integrated the Google Maps API to display user event locations, elevating the user experience and improving event planning capabilities.

CHAT.TV, A LIVE STREAMING AI CHAT SERVICE, APRIL 2023 TO PRESENT

- Designed a multi-threaded application to ensure a seamless GUI performance while handling real-time API responses.
- Engineered a simulated live streaming platform, enabling small streamers to interact effectively with large language model bots.
- Integrated SpeechRecognition to transcribe user speech into text, facilitating seamless communication with bots.
- Utilized OpenAI's API to generate dynamic and engaging bot responses, tailored to user input.
- Successfully scaled the platform to support a concurrent load of over 10,000 bots within a livestreaming chat environment.

NFL PLAY PREDICTOR, JULY 2023 TO PRESENT

- Employed pandas to meticulously clean and preprocess extensive tabular datasets, categorizing data and optimizing it for machine learning.
- Demonstrated a 66% accuracy rate in predicting drive outcomes using a real play-by-play statistics dataset, leveraging an XGBoost classification model.
- Conducted in-depth model analysis utilizing sci-kit learn (sklearn), leading to substantial accuracy enhancements through iterative code refactoring.

EDUCATION AND CREDENTIALS

BACHELOR OF SCIENCE (B.Sc.) IN COMPUTER ENGINEERING, MAY 2024

Binghamton University, SUNY, Watson School of Engineering and Applied Science, Binghamton, NY, USA

ADDITIONAL INFORMATION

Technical Proficiencies: Python, Javascript, C++, HTML, CSS, SQL, Rust, C, Java, Go, AWS, Temporal IO, Google Cloud, Node, React, NLP, spaCy, Microsoft SQL Server, React Native, Next.js, Expo, React Navigation, Git, Windows, MacOS, Linux, XGBoost, scikit-learn, LangChain, FAISS, Matplotlib

Relevant Coursework: Data Structures & Algorithms, Design Patterns, Design & Analysis of Algorithms, Intro to Machine Learning, Programming Languages, Java OOP, Advanced Computer Architecture

Interests: Natural Language Processing, Vector Databases, Data Analysis, Creative Programming, Music Production