Victor Wu

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EDUCATION

City University of New York Queens College

Bachelor of Arts in Computer Science

May 2024 GPA: 3.9

RELEVANT COURSEWORK

Software Engineering & Design, Data Structures & Algorithms, Object-Oriented Programming, Cloud Computing, Database Systems, Web Technologies, AI, Machine Learning

SKILLS

Technologies: React.js, Node.js, MongoDB, Django, Git/GitHub, AWS, Azure, Google Cloud, Firebase, Axios, Scikit-learn, NLTK (Natural Language Toolkit), Insomnia, MySQL, SQLite, Snowflake, PyTorch

Programming Languages: Python, SQL, JavaScript, TypeScript, R, Java, C++, HTML, CSS, Lisp

EXPERIENCE

Ohio State University NSF AI-Edge Institute REU | Generative AI Researcher

Jun 2024 - July 2024

- Implemented advanced generative modeling techniques using PyTorch, Google Collab, and Python through rigorous coursework and hands-on projects within a highly selective program of 25 researchers
- Fine-tuned a GPT-2 LLM on ~1 million tokens of Shakespearean poems using PyTorch, improving performance by 10%
- Led a team of 3 to author detailed project reports documenting methodologies and showcasing the results in panel discussions and presentations to 10 postdoctoral and PhD mentors

Department of State | *Software Engineer*

Sep 2023 - July 2024

- Engineered and deployed a generative AI web application in a team of 7 using HTML, CSS, JavaScript, React.js, AWS
 Cloud9, and integrated an AI chatbot via an API endpoint connected to LLAMA 7B on AWS SageMaker, enhancing user
 experience through document analysis and information synthesis using the RAG approach
- Deployed the Retrieval-Augmented Generation (RAG) approach with LLAMA 7B using LangChain & Python, allowing users to upload documents and interact with the chatbot for document analysis, increasing employee productivity by 3%
- Architected a data transformation pipeline in R in a team of 8 on 6 distinct data tables with ~100,000 data points, enhancing data clarity, accuracy, and reporting capabilities for improved business intelligence and decision-making

Con Edison | Software Engineer

Dec 2023 - May 2024

Developed and implemented SharePoint sites and Microsoft Power Apps to create a centralized hub for all technological needs, increasing productivity by 3% by streamlining operations and providing easy access to tools and resources for 5+ supervisors, 2+ managers, and 10+ field workers

NSF (National Science Foundation) | Data Analyst

Sep 2023 - Dec 2023

- Analyzed 300K+ program proposals using Python, Pandas, Scikit-learn, and Matplotlib to identify trends and build data visualizations, empowering startup program directors to optimize investment strategies
- Designed a data processing pipeline in a 3-person team to visualize 300K+ proposal entries, documenting data cleaning and analysis pipelines to ensure long-term data accessibility and usability

AIG (American International Group) | Data Scientist

Jun 2023 - Aug 2023

- Architected and transformed 4 datasets from Oracle and Snowflake into SQL tables with a unified schema using Python,
 Pandas, and AWS Sagemaker, enabling seamless data integration and comprehensive insurance claim analysis
- Re-architected ~1 million records via data cleaning to ensure consistency & completeness by transforming empty & inconsistent values, including lengthy descriptions through custom Python functions

PROJECTS

SnapMarket (TikTok TechJam) | Tech stack: React.js, Django, Python, JavaScript, HTML, CSS, Axios

- Executed a web app in a team of 6 that enables direct product searches from video content via screenshots using React.js, Django, Axios, Python, JavaScript, Google Cloud Vision, & Serp API to enhance the user's shopping experience on TikTok
- Integrated Google Cloud Vision API and Serp API to analyze video screenshots, generating descriptors and parsing that to retrieve product recommendations from Google, improving product search accuracy by 15%
- Built Django APIs and React components for integration of API data retrieval, & to display content dynamically for a seamless user experience

Poké Generator | Tech stack: Python, Google Collab, PyTorch, Pandas, Stable Diffusion

- Spearheaded a team of 3 to develop a data pipeline and fine-tuned Stable Diffusion 2 to generate believable Pokémon-like images from text descriptions using Python, Pandas & PyTorch resulting in an improved model performance by 40%
- Developed a high-quality dataset by processing 5 datasets with ~300,000 data points from Kaggle, Hugging Face, and PokéAPI using Python & Pandas to enhance the data to achieve better fine-tuning results

Down the Rabbit Hole | Tech stack: MongoDB, Express.js, React.js, Node.js, JavaScript, Axios

- Led a 4-person team using Agile to develop a "Rate My Courses" platform in the MERN (MongoDB, Express.js, React.js, Node.js) stack, revolutionizing how users research and choose online and in-person courses.
- Engineered a user-friendly research tool by conducting user interviews, developing a web scraper and utilizing AI APIs to summarize course reviews, providing comprehensive course information and user-friendly data visualizations

ACTIVITIES

Google Software Engineer Mentee | Microsoft Student Ambassador | Bloomberg Software Engineer Mentee | NSF S-STEM Scholar | Microsoft Certified: Azure Fundamentals | AWS Certified Cloud Practitioner | Google Project Management | Presidential Scholar |