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Education

Beloit College

Expected Graduation, May 2026

Double Major in Computer Science and Quantitative Economics

Beloit, Wisconsin

- **GPA: 3.9/4.0**, **Concentrations:** Data Science
- **Relevant Coursework:** Data Structures & Algorithms, Discrete Structures, Introduction to Microeconomics, Introduction to Macroeconomics, Linear Algebra, Calculus, Database Capstone, Analytics with SQL, Abstract Algebra, Statistics, Differential Equations, Machine Learning Capstone, Intermediate Microeconomics

Experience

Bursar Financial Service Beloit College

April 2023 – Present

Data Science Engineer

Beloit, Wisconsin

- Utilized statistics and ML to uncover 3 significant spending patterns, increasing student interest alignment by 25%.
- Developed a Python and Java-based desktop application for automating tasks and **saved \$10k** by in-house production of custom Financial Aid letters for each student, previously done by outsourced services.
- Automated daily expense reports with HTML, JavaScript, CSS, and Python for departmental budget allocation and used Python packages (gensim, tensorflow, scikit-learn) to achieve 97% accuracy in classifying text and email messages.

Dr. Ganesh Mani, Carnegie Mellon University (CMU: SCS)

August 2023 – January 2024

Machine Learning Research Intern

Pittsburgh, Pennsylvania (Remote)

- Conceptualized a mobile system using Python to achieve pose-invariant 3D face reconstruction from 2D, for cancer and cosmetic cases. It creates patient phantoms, combining with internal CT scans for XR based surgical analysis.
- Trained a GAN in PyTorch, using Scikit-Learn, Numpy, and OpenCV to preserve facial features in translation. Achieved **90.2% Accuracy** on the LFW Dataset and fine-tuned it on CMU Multi-Pie for consistent illumination across angles.
- Used DLib extract 68 facial landmarks, mapping them onto the 3D FLAME model with SciPy, PyMesh, and Matplotlib.

KFin Technologies (RTA with AI powered Mutual Fund Analytics)

May 2023 – August 2023

Software Engineer Intern

Mumbai, India

- Implemented and hosted a Google Cloud OAuth 2.0 based server on AWS ECS to manage the ML lifecycle and ensure code reusability across Data Science projects. Analyzed security flaws in Basic HTTP Auth and deployed platform versions via Terraform stacks, utilizing AWS services like S3, Route 53, RDS, and Secrets Manager.
- Wrote Python scripts to track Expense Ratio data of Mutual Fund Schemes, utilizing Selenium, BeautifulSoup, Pandas, Seaborn, and AWS Athena to scrape AMFI India's site. Implemented a custom Vector Comparison method using NLTK, spaCy, and Scikit-Learn for semantic mapping of **5M+ Historical Schemes to Current Records (80% Accuracy)**.
- Built and scheduled AWS Lambda Functions to validate investor data for **20+ Asset Managers**, classifying anomalies and relaying them to project teams for review via email and AWS Simple Notification Service (SNS).

Projects

Outfit Recommender using GenAI | *Typescript, Azure Bing Services, Azure Open AI* (Github)

Januray 2024

- Developed a cutting-edge conversational fashion outfit generator powered by genAI, leveraging user order history and cart data to provide personalized outfit recommendations. **Winner of Hacklytics'23**

Trading Bot | *pandas numpy, scipy, matplotlib* (Github)

November 2023

- Created financial tools in Python for portfolio optimization, risk management, and Sharpe ratio maximization using genetic algorithms and CVaR. Developed in **University of Chicago Trading Competition 2023**

Amazon multimodal complaint identification | *Pandas, Numpy, Transformers, PyTorch* (Github)

October 2022

- Designed a multi-modal classification system that leverages both text and image data to identify complaints in reviews, considering various aspects like sentiment and emotion.

Technical Skills

Languages: Python, Java, C, C++, R, MATLAB, HTML, CSS, ReactJS, Node.js, JavaScript, SQL, NoSQL, Kotlin

Developer Tools: VS Code, Spyder, Android Studio, Jupyter, AWS, Google Cloud, Microsoft Azure, Docker, Git, Bootstrap, HuggingFace, Tableau, PowerBI, Rest API, GraphQL, AstraDB, MongoDB, React.js, React Native.

Frameworks: PyTorch, TensorFlow, Pandas, Numpy, Scikit-Learn, Selenium, Beautiful Soup, Flask, NLTK, LangChain

Leadership / Extracurricular

Buccaneers Robotics Club

Fall 2022 – Present

Vice-President and Tech Lead

Beloit College

- Actively engaged in VexU competitions, facilitated workshops, and organized training sessions for club members and local schools in the Beloit area, where we shared expertise and skills in robotics design, programming, and operation.