

Brandon Dutton

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EDUCATION

Michigan State University

Bachelor of Science in Computer Science

East Lansing, MI

Aug. 2020 – May 2024

- Relevant Coursework: Database Systems, Data Structures & Algorithms, Computer Systems & Architecture

EXPERIENCE

Susquehanna International Group (SIG)

June 2023 – August 2023

Software Engineer Intern

Bala Cynwyd, PA

- Redesigned compute-cluster monitoring software from the ground up to enhance intuitiveness and responsiveness, leading to 80% faster load times
- Supported critical data pipeline services running on a cluster computer, ensuring the consistent availability of crucial data to trading teams
- Collaborated with trading and support teams to ensure implementations were well aligned with anticipated/desired features
- Implemented new logging system, enhancing the ability to see who is using data and how frequently

Ethos Group

June 2022 – April 2023

Software Engineer Intern

Irving, TX

- Built high-speed and robust full-stack web applications using C#, SQL, Angular
- Designed and implemented ability to create forms from templates to reduce users' repeat workload by 70%
- Engaged with Azure DevOps to collaborate and communicate effectively with coworkers in accordance with Agile methodologies
- Cooperated with sales and marketing teams to ensure designs did not interfere with future plans and successfully met customer requests

Tenneco Inc

February 2022 – May 2022

Data Analytic Intern

Monroe, MI

- Analyzed thousands of entries from human resources dept. to identify inefficiencies in multiple department HR processes such as salesperson bonus calculation
- Calculated racial and gender diversity by region to ensure all departments' hiring procedures aligned with company policy
- Computed turnover for several departments, informing executive decisions with respect to incentives programs
- Presented data department's findings via monthly newsletter, ensuring the synchronization of over 200 global offices

PROJECTS

AutoNotes Website | Python, HTML, Django

February 2022 – June 2022

- Utilized Django Views and Crispy Forms to rapidly build front-end UI components
- Hosted entire project, including classification neural network on OpalStack
- Uploaded code to GitHub for others to view and use, with extensive documentation to allow reproduction
- Implemented PostgreSQL database with Django Models for back-end user and upload management and storage
- Used Django-Environ to properly the encrypt secret key and other sensitive information

AutoNotes Neural Network | Python, TensorFlow

February 2022 – June 2022

- Trained convolutional neural network on randomly sampled MNIST 0-9 and Kaggle A-Z data sets to classify images of handwriting as text
- Implemented Open-CV pre-processing to improve edge detection by increasing contrast between text and background, leading to 15% accuracy increase
- Used TensorFlow library to save trained model and later implement in website for user-uploaded handwriting

TECHNICAL SKILLS

Languages: C#, Python, TypeScript

Developer Tools: Git, Azure DevOps, Gitlab, JIRA

Libraries: NumPy, Keras, TensorFlow, Open-CV

Frameworks: Django, Flask, Dotnet, PostgreSQL, Angular