

Dylan Farrell

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EDUCATION

Rutgers University

New Brunswick, NJ

B.S. in Computer Science

Sep. 2020 - May 2024

- Relevant Coursework: Algorithms, Intro to Artificial Intelligence, Intro to Data Science, Principles of Information and Data Management, Software Methodology, Discrete Structures, Data Structures, Physics 1 & 2

EXPERIENCE

Software Engineer Fellow

July 2024 – Sep. 2024

HeadStarter AI

New York

- Developed Munch Mates, a Flutter-based mobile application integrated with Firebase, implementing custom authentication, Yelp API integration, and real-time location services. Features a swipe-based interface for restaurant discovery, user preference management, and social features like shared restaurant viewing sessions.
- Built and deployed 5 AI projects in 5 weeks using React.js, Next.js, Firebase, following agile methodologies with weekly sprints.
- Participate in weekly sessions with engineers from Google, Y Combinator, Stanford, Amazon and venture-backed startups.

Research Extern

June 2023 – Aug. 2023

Rutgers MBS

New Brunswick, NJ

- Researched ways to identify and mitigate evolving cybersecurity threats to Maritime IoT devices, focusing on innovative solutions like the Zero Trust Model.
- Conducted an in-depth analysis of past cyber-attacks on the maritime industry, assessing their impact on operations, finances, and safety.
- Implemented risk assessment models to evaluate potential vulnerabilities and proposed solutions to enhance security measures for maritime operations.
- Presented findings throughout the week with a team of advisors, receiving feedback and iterating on proposed solutions to ensure a successful project outcome.

PROJECTS

Clipstation.io | *Next.js, Typescript, Postgres, AWS*

Fall 2024

- Developed a full-stack web application using Next.js and TypeScript, enabling users to upload, transcribe, and edit video content seamlessly, enhancing user engagement.
- Implemented Twitch API to get clips based on metrics users want automatically and Youtube API to instantly post.
- Implemented AWS services, including S3 and Transcribe, to automate video transcription processes and store files.

Streaming App | *Java, XML, SQLite, Android Studio*

Summer 2024

- Developed an IPTV streaming application featuring secure user authentication, favorite channels for sub-users, streaming channels, and searching across all categories.
- Implemented custom fetchers and parsers to process M3U playlist data for live TV channels, movies, and TV shows, and integrated RecyclerView with custom adapters to display categorized content.
- Designed the app to support compatibility with Google TV, Amazon Fire TV, and various Android TV devices.

Face and Digit Classification | *Python, Machine Learning, Neural Networks*

Spring 2024

- Implemented and trained a convolutional neural network using a ReLU activation function and L2 regularization to classify handwritten digits and detect faces in pre-processed images.
- Achieved classification accuracies of 83.8% for digit classification and 92% for face classification.
- Developed features based on raw pixel data and additional quadrant-based features for digit images, which optimized perceptron and neural network performance.

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, HTML, JSON

Frameworks: React, Next.js, Node.js, Django, JUnit

Developer Tools: Git, AWS, Google Cloud Platform, Visual Studio, IntelliJ, Eclipse, Android Studio

Libraries: Pandas, NumPy, Matplotlib, Pygame