

# Brandon Yuan

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## EDUCATION

**Texas A&M University**  
*Bachelor of Science in Computer Science*  
*Honors Student @ College of Engineering*

**College Station, TX**  
*May 2027*  
*Cumulative GPA: 3.71/4.00*

## EXPERIENCE

**DigiCert**  
*Product Innovation Intern*

**Austin, TX**  
*May 2025 – August 2025*

- Prototyped a web extension to classify images using C2PA credentials & an AI-image detection model to flag images as real/fake based on verified metadata or high likelihood scores from model inference
- Developed the backend of a WordPress extension, allowing image authentication by using a CSC-based API to sign & embed C2PA credentials that users upload to their sites

**TAMU Department of Construction**  
*Research Assistant*

**College Station, TX**  
*August 2024 – Present*

- Utilized datasets from **8 construction companies** to train, test, and tune different machine learning models (decision tree, random forest, regression) to accurately predict employee absenteeism within construction workforces
- **Led feature engineering** for commute time & weather details with historical data from APIs
- Refactored databases from **3 companies** to improve the efficiency of our machine learning pipeline
- Collaborated with a professor to report insights to the respective companies and the Aggie Research Program

**Aggie Coding Club**  
*Projects Officer, Projects Manager*

**College Station, TX**  
*September 2023 - Present*

- Directed the ideation & development of **Notes with Canvas** and **Spotify VibeMap**, two separate year-long software projects
- Organized teams of 10-20 students by implementing structured collaboration workflows & holding regular meetings
- Held regular meetings/workshops to check in with other project managers, providing resources & advice to help them succeed

## PROJECTS

**Spotify VibeMap** | *React, react-force-graph, node2vec, NetworkX, scikit-learn, Flask, Spotify API* *September 2024 – April 2025*

- Conducted in-depth analysis with frequency data provided by Spotify's API, as well as extracted unique features in songs not typically considered by Spotify's recommendations
- Generated detailed classifications of different tracks, vectorizing results to find similarities between songs, playlists, and users
- Visualized data through a web (using **D3.js** & **react-force-graph**), enabling users to explore connections between songs

**Notes with Canvas** | *React, Flask, Canvas API, PostgreSQL, Firebase* *September 2023 – April 2024*

- Won "**Best Learning-Focused Project**" from among **36 other projects** in the Aggie Coding Club
- Developed a task-management web app, featuring integration with Canvas to dynamically populate calendar & task board interfaces, with the support of a Firebase-hosted Flask server that returned JSON data from users' Canvas courses
- Coordinated a **15-member** team through **9 Agile sprints**, designed & divided tasks between frontend/backend teams

**Red Dead Convolution** | *PyTorch, TensorFlow, OpenCV, NumPy* *September 2023 – December 2023*

- Designed and trained an image classification model on **500+** in-game screenshots from the video game *Red Dead Redemption II*, achieving **87% detection accuracy** through model finetuning
- Collaborated with a **team of 30+** to augment datasets (using OpenCV), then developed a convolutional neural network to classify different objects (e.g. horses & cowboys) by extracting shapes, pooling layers, and then connecting them

## SKILLS & INTERESTS

**Technical Skills:** Python, C++, Java, TypeScript, React, Flask, PyTorch, PostgreSQL

**Developer Tools:** Git, Linux, Docker, Postman

**Areas of Focus:** Full-stack Development, Machine Learning, Data Analysis & Visualization

**Relevant Coursework:** Data Structures & Algorithms, Design & Analysis of Algorithms, Linear Algebra, Computer Organization