Brandon Yuan

(512) 413-6692 | brandonyuan05@gmail.com | linkedin.com/in/brandonyuann/ | github.com/brandonyuanCS

Education

Texas A&M University — College Station, TX
Bachelor of Science in Computer Science — *Aug. 2023 – May 2027*
Engineering Honors Student — *GPA: 3.71/4.00*

Experience

Product Development Intern — May 2025 – Aug. 2025
DigiCert — *Austin, TX*

- Developed WordPress plugin for 100+ WooCommerce vendors, increasing purchase confidence via verified images
- Automated C2PA credential embedding with cryptographic signing to show image provenance & authenticity
- Engineered Flask microservice integrating TOTP-based CSC APIs, maintaining sub-500ms response times at scale
- Created browser extension to verify C2PA credentials, expanding authentication ecosystem beyond WordPress

ML Research Assistant — Aug. 2024 – Aug. 2025
TAMU Dept. of Construction Science — *College Station, TX*

- Trained models (RF & kNN) to predict employee absenteeism in construction workforces, achieving R^2 of 0.82
- Analyzed 4.9 million hours of workforce data spanning 500+ employees across 8 companies over 5 years
- Engineered unified time-series schema across 3 disparate databases, reducing ETL pipeline runtime by 50%
- Led feature engineering for commute time & weather with historical data, boosting model performance by 4%

Projects Officer & Manager — Sep. 2023 – Present
Aggie Coding Club — *College Station, TX*

- Managed 20+ active projects with 200+ students, automated project assignment & Discord communication
- Established PM training program (30+ PMs), achieved 85% project completion rate through guided mentorship
- Led two software projects (Canvas2calendar, Spotify VibeMap), coordinating 15+ developers across teams

Projects

Periph4all | *Next, FastAPI, Groq, SentenceTransformers, scikit-learn*

- Built AI-powered recommendation engine matching users to gaming mice via conversational preference extraction
- Implemented semantic search with 384-dimensional embeddings, processing 175+ products in <2 seconds
- Created interactive UMAP & graph visualizations, enabling users to visually explore different products & clusters

Canvas2calendar | *React, Express, PostgreSQL, Prisma, Google Cloud APIs*

- Won "Best Learning-Focused Project" among 36 other projects in Aggie Coding Club
- Engineered web extension enabling custom parsing & filtering of Canvas ICS feeds to sync with Google Tasks
- Detected changes via hash-based differential sync, reduced Google API calls by 90%, maintained <5s refresh times

Spotify VibeMap | *React, react-force-graph, node2vec, NetworkX, scikit-learn, Flask, Spotify API*

- Built website analyzing Spotify listening data to generate song recommendations shown via interactive 3D graph
- Implemented graph traversal pipeline to process 200+ song networks with 10 random walks in under 3 minutes
- Generated 4-5 novel recommendations per query through a graph-based model using vector embeddings

Technical Skills

Programming Languages: Python, Java, C++, C#, TypeScript, JavaScript, Bash
Frameworks & Libraries: React, Node, Express, Next, Flask, PostgreSQL, FastAPI, MongoDB, AWS (EC2, Lambda)
Developer Tools: Git, Linux, Postman, Jira, Docker, Kubernetes, Vercel, Render, Hugging Face Spaces
Concepts: Full-stack Development, Frontend Development, Backend Development, DevOps, CI/CD, Machine Learning, Data Visualization, Microservices, Agile, Cybersecurity, Cloud Computing, Databases, Data Structures & Algorithms