Collin Brennan

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EDUCATION

Western Governors University, Salt Lake City, UT   2024
- *BS in Cybersecurity*
- *Relevant Coursework:* CIS 162/163, Network Foundations, Data Management
- *Awards:* Excellence in Communicating with Others & Legal Issues in Cybersecurity

TECHNICAL SKILLS

- Languages: Python, JavaScript, Dart, SQL
- Frontend: Vue.js, Flutter, Tailwind CSS, HTML
- Backend Skills: Flask, RESTful APIs, Model Inference (keras/PyTorch)
- Tools & Platforms: AWS (Aurora, S3, RDS), Docker, Firebase, Git

WORK EXPERIENCE

Edge Forestry, *Software Engineer*, Grand Rapids, MI   May 2025 - Present
- Owned end-to-end development of a Vue.js web application, from initial system design and component architecture to state management, backend PyTorch model inference, and backend API integration.
- Implemented a secure data access layer using JWT authentication and Pinia store state management to securely serve frontend data requests from our AWS S3 bucket.
- Modularized backend architecture into modular, navigable components, improving codebase clarity and reducing development and onboarding time by 50%+.
- Refactored model inference from Keras to support PyTorch models, resulting in a 5% improvement in prediction accuracy and confidence (90 to 95%).
- Designed and implemented comprehensive unit, integration, and end-to-end tests, improving system reliability and caching regressions before production.

PROJECT EXPERIENCE

Offline Tree Disease Diagnosis, *Mobile App and Device*
- Engineered an offline machine-learning disease detection device for client environments.
- Developed a Flutter application integrating automated USB data extraction and Rasp-Pi PyTorch image inference.
- Accelerated forest inspection and land treatment workflows by 75%.

Brix, *AI Educational Learning Platform*
- Built a Vue learning platform centered on guided reasoning, prerequisite mastery, and conceptual abstraction rather than direct solution output.
- Architected a PostgreSQL-backed persistence layer to analyze prior interactions and continuously adapt instruction to individual learning gaps and strengths.

Cinematch, *Movie Discovery Platform*
- Built a platform for personalized movei discovery, recommendations, and content curation on user preferences.

LEADERSHIP EXPERIENCE

Varsity High School Lacrosse Coach, Haslett, MI   Jun 2022 - Aug 2024
Attack Positional Coach (Jun 2022 - Aug 2024)
- Produced the first offensive All-American in school history.
- Responsible for in-game subbing, player personnel, and attack positional development.

Offensive Coordinator (Jun 2023 - Aug 2024)
- Directed strategic planning and development of 40+ student athletes, resulting in a top-10 statewide finish.
- Drove offensive system design that produced the highest scoring offense in school history.