

EDUCATION

Washington State University

Expected May 2026

B.S. in Computer Science - ΣAE

- **Coursework:** Operating Systems, Parallel Computing, Big Data, Computer Architecture, Machine Learning, Cyber & Anti-Forensics, Cyber Security & Cryptography, Programming Language Design, 3D Digital Animation

EXPERIENCE

Software Engineer

Aug 2025 – Present

Stateira Labs | stateiralabs.com/terminal

- Built a production stock market terminal serving 400+ users, featuring live candlestick charts with EMA, VWAP, and RSI overlays, streaming tick-level price updates via Finnhub WebSocket, and financial news aggregation with automatic source failover.
- Engineered a fully serverless backend on AWS Lambda with Node.js ESM, handling user authentication (bcrypt), email verification (Resend), and payment processing (Stripe); reduced infrastructure cost by eliminating persistent server overhead.
- Authored 3 custom chart indicators in thinkScript and PineScript for Charles Schwab thinkorSwim and TradingView platforms, deployed to active traders.

Teaching Assistant

Aug 2024 – Present

Department of EECS, Washington State University

- Support 300+ students each semester through weekly office hours and lecture sessions, covering low-level C++ programming, memory management, and hardware-software interfaces.
- Rewrote 5+ legacy lab solutions with improved error handling, modern C++ idioms, and thorough documentation, reducing recurring student confusion and TA support load.
- Identified and resolved recurring bugs in assignment infrastructure, improving grading accuracy and student experience across multiple lab cycles.

PROJECTS

Customer Support AI Agent | github.com/xeij/ai_agent

- Designed and deployed a production AI voice agent handling inbound customer calls end-to-end: built on FastAPI with Twilio webhook integration, ElevenLabs TTS for sub-second voice synthesis, and gpt-4o-mini for intent classification and response generation.
- Implemented a hybrid RAG pipeline using LangGraph and ChromaDB that dynamically routes queries between a vector knowledge base and structured SQL, reducing hallucination rates by grounding responses in authoritative data sources.
- Architected a high-throughput async webhook backend capable of processing concurrent Twilio voice streams with minimal latency, enabling real-time conversational responses at scale.

RobotEd – Robot Programming Platform | github.com/xeij/RobotED

- Co-led development of a teach pendant system for SkillsUSA robotics teams using Java and the FTC SDK; implemented a 5-layer architecture with a hardware abstraction layer supporting 100+ distinct robot configurations.
- Eliminated 15–20 minutes of error-prone manual encoder transcription per robot session by building a unified encoder management API integrating motor encoders and odometry wheels with precise positioning and autonomous navigation support.
- Validated on physical competition hardware and received client sign-off with 'exceeded expectations' — approved for adoption across the national SkillsUSA robotics competition network.

English Football Betting Model | github.com/xeij/sportsbetting_model | huggingface.co/spaces/xeijs

- Trained an ensemble ML system (XGBoost + LightGBM) on 18,000+ historical matches across 4 English football leagues, engineering 65 features with chronological train-test splits to eliminate data leakage.
- Built a fully automated ETL pipeline (pandas, requests) sourcing from football-data.co.uk; exposed the model through CLI, Tkinter desktop GUI, and Gradio web interface deployed on HuggingFace Spaces.
- Integrated live odds fetching via The Odds API to surface positive expected-value bets in real time at kickoff.

SKILLS

Programming Languages: C++, Rust, Python, Java, SQL, Bash, JavaScript

Languages: English (Native), Persian (Native), Spanish (Conversational)

Systems & Data: PostgreSQL, Redis, Kafka, Linux/POSIX, TCP/IP, gRPC, Concurrency & Multithreading

AI/ML: LangChain, LangGraph, OpenAI API, XGBoost, LightGBM, scikit-learn

Cloud & Monitoring: Docker, Kubernetes, AWS, Git, Prometheus, Grafana

Concepts: Distributed Systems, Async I/O, Load Balancing, REST APIs, CI/CD, Performance Profiling, Agile