FULL-STACK AI ENGINEER

Candidate Reference Number: 202608091351

PROFILE

Early-career software engineer with hands-on experience in **full-stack web development, real-time systems, Python services, PostgreSQL, cloud deployment, and emerging AI/quantum computing research**. Currently pursuing a Computer Science degree with coursework spanning data structures, algorithms, software engineering, computer architecture, systems programming, databases, probability, statistics, and programming languages.

CORE CAPABILITIES

Frontend / Full Stack: React.js | Next.js | TypeScript | JavaScript | Tailwind CSS | Node.js | Express.js
Backend / Data: Python | Flask | PostgreSQL | Supabase | Firebase | SQL | WebSockets | REST-style APIs
Desktop / Systems: Electron | C++ | Java | Bash | multi-threaded job queues | ffmpeg | yt-dlp
AI / Research: quantum machine learning concepts | neural-network proof-of-concepts | Qiskit | PennyLane | post-quantum cryptography research
Tools / Delivery: Git | GitHub | Vercel | VS Code | Xcode | Eclipse | Apache Tomcat | Replit

SELECTED DELIVERY EVIDENCE

- Engineered and deployed a responsive **React/Next.js full-stack website** for a local organization, including program scheduling and gallery content.
- Built a **real-time tournament dashboard** using React, Next.js, Supabase, PostgreSQL WebSocket streams, and Vercel to synchronize live state across concurrent spectator devices.
- Improved real-time data handling by adding client-side mutation debouncing and resolving server-side rendering property-validation issues.
- Architected a cross-platform **Electron desktop application** combining a React/Next.js interface with a Python/Flask microservice and bundled media-processing binaries.
- Engineered a **multi-threaded Python job queue** for concurrent conversion tasks and resolved a Windows-specific UTF-8 I/O failure causing silent server crashes.
- Researched **post-quantum cryptography** and integrated quantum-machine-learning concepts with neural networks in proof-of-concept applications.

EDUCATION

Bachelor of Arts in Computer Science - in progress (expected 2027)

ENGAGEMENT FIT

Best suited to **junior or mentored Full-Stack AI engineering work** where strong implementation skills in React/Next.js, Python, PostgreSQL, real-time systems, and debugging can be paired with senior guidance in production AI architecture, client-facing delivery, and large-scale system ownership. The candidate shows clear technical range and evidence of learning quickly across web, desktop, systems, and emerging AI domains.

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