Stephanie Hill

Software Engineer

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Summary

Software engineer with 3.5+ years building data-backed web applications, most recently the device API and data model for a fleet of ~300 voice-enabled IoT devices used in schools. Strongest in backend work, SQL and schema design, and turning raw usage data into something teams and schools can act on. Experienced with WCAG 2.1 accessibility and SOC 2-driven authentication work, and a daily user of AI-assisted development. Pursuing an A.S. in Computer Science, followed by a data science certificate. Seeking remote roles at mission-driven organizations where software and data meet.

Core Skills

- **Languages:** Python, JavaScript/TypeScript, PHP, SQL; C++ (coursework)
- **Data & Databases:** MySQL 8, PostgreSQL; schema design, indexing, query optimization; scheduled data ingestion, deduplication and sync, data migrations, de-identification
- **Backend & APIs:** REST APIs, device-to-server HTTP APIs, Node/Express, PHP, auth and sessions
- **Cloud & IoT:** AWS (Cognito, RDS/Aurora), Azure Speech SDK, Python device firmware
- **Frontend:** React, Next.js, Angular, GSAP; accessibility (WCAG 2.1 AA)
- **Quality & Ops:** Code review, testing, structured logging (Monolog, Datadog), incident triage
- **AI-Assisted Development:** Claude Code for specs, tests, and implementation, with human review and validation
- **Familiar with:** pandas, Jupyter

Experience

Ripple Effects — Software Engineer (Remote · Feb 2023 – Present)

IoT device data & firmware (grant-funded AI-in-education research project, 2025 – present)

- **Designed the data collection layer** for ~300 voice-enabled animatronic breathing companions used in schools. Built the device API and MySQL schema capturing session usage and voice-recognition telemetry, giving the organization its first visibility into how devices were actually used.
- **Connected device data to a school-facing Data Viewer** so educators could track usage alongside the research study. Device usage data became one of the project's most valuable outcomes.
- **Took over Python firmware development** from an outside contractor mid-project and stabilized voice-command features (Azure Speech SDK) across 5 languages: English, Spanish, French, Arabic, and Mandarin. Used AI-assisted development to ramp up in an unfamiliar embedded domain.

Data operations

- **Maintain a nightly scheduled job** that ingests Clever student event data into the production database. Led efficiency work on a full-dataset sync that merges duplicate records and reconciles discrepancies.
- **Fulfill data requests** including de-identification (anonymization) of student records and data migrations; tested and validated transformed output before release.
- **Cut average API response time by 85%** (3.0s to 0.46s) in a legacy PHP/Angular/MySQL 8 stack by profiling, adding targeted indexes, and eliminating N+1 queries.

Platform, accessibility & security

- **Led a company-wide accessibility initiative** (WCAG 2.1): screen reader and keyboard audits, defect triage, and remediation guidance, resulting in successful compliance certification.
- **Architected an authentication modernization** on AWS Cognito for SOC 2 compliance and future SSO; designed user flows, coordinated with a senior architect and consultants, and guided an offshore team through implementation.
- **Built production UIs** for interactive educational apps, including a Next.js + GSAP coloring experience and an animated storybook.
- **Improved reliability:** production support and incident triage on AWS (Cognito, RDS/Aurora), structured logging with Monolog routed to Datadog, and regular code reviews with tests around critical paths.

Code Fellows — Lead Instructor, Code 201, Part-Time (Seattle, WA · Feb 2023 – May 2023)

- Taught Foundations of Software Development (HTML, CSS, JavaScript, Git/GitHub, DOM) through lectures, labs, code reviews, and 1:1 mentorship, emphasizing semantic, accessible code.

Education

Champlain College — A.S., Computer Science (Online · Expected Fall 2027)

Relevant coursework: Python, SQL/Databases, C++ (in progress)

Code Fellows — Certificate, Advanced Software Development in Full-Stack JavaScript (2022)

W3Cx — Certificate, WAI0.1x: Introduction to Web Accessibility (2022)