TYLER HOLEWINSKI

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WORK EXPERIENCE

Senior Software Engineer May 2024 – Present

Bryx, Inc. — *Rochester, NY*

- Acted as frontend technical lead, setting architecture, standards, and review practices across multiple products.
- Designed and implemented Kotlin and GraphQL APIs for a mission-critical emergency mass notification system used by public safety agencies.
- Took primary ownership of the message delivery API, designing message lifecycles and multi-channel delivery (SMS, push, email, voice).
- Delivered end-to-end features spanning database design, backend implementation, and frontend interfaces.
- Integrated OpenTelemetry across frontend and backend services, granting support more direct visibility into internal failures.

Frontend Software Engineer Aug 2022 – May 2024

Bryx, Inc. — *Rochester, NY*

- Designed and implemented an internal DSL and compiler for declarative validation of complex NFIRS and NERIS forms.
- Improved real-time cascading React validation in a 200+ field form from 6s to 500ms through a batched, dependency-aware validation system.
- Served as frontend subject-matter expert for form-heavy and mapping features, influencing architectural decisions.

Software Engineer Intern May 2022 – Aug 2022

Bryx, Inc. — *Rochester, NY*

- Developed core frontend functionality for a SaaS records management system focused on high configurability for fire departments.

SELECTED WORK

TiCoder — ticoder.dev

- Built a browser-based TI-BASIC editor that compiles block-based programs and flashes them to physical TI-84 calculators over WebUSB, eliminating the need for proprietary TI-Connect software on student devices.
- Authored supporting open-source libraries: tibrs, a Rust crate for compiling and decompiling TI-BASIC to the .8xp binary format, and better-blockly, a typesafe declarative API for Google Blockly.

EDUCATION

Rochester Institute of Technology, *School of Independent Study*
B.S. Applied Arts and Science (completed part-time)
Focus in Software Engineering and Mathematics

TECHNOLOGIES

- TypeScript, React, GraphQL, Complex Form & Validation Workflows
- **Backend Systems** Kotlin, Node.js, PostgreSQL, Event-Driven & Message-Oriented Architectures, API Design
- **Observability & Tooling** OpenTelemetry, RabbitMQ, Grafana, Docker, CI/CD, Linux