

Micah Simmerman

Python Developer · Software Engineer

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github.com/Micah614 · Fairbanks, AK

SUMMARY

Software engineer with a strong background in analytical science. I build and modernize business-critical public-sector applications in Python, TypeScript and React, with a record of creative problem-solving, clear communication and well-informed technical leadership.

EXPERIENCE

Analyst / Programmer 2 · State of Alaska, Department of Transportation & Public Facilities

2024 - Present

- Design and develop a RESTful Node.js API and React frontend components in TypeScript that modernize legacy reporting systems statewide.
- Build and maintain a Selenium UI test-automation suite in Python and bash for regression testing of in-house and third-party SaaS applications.
- Maintain the team's Ubuntu Linux / WSL toolchain and support SaaS and in-house projects, applying ISO/IEC/IEEE practices and Lean/Agile delivery.

Frontend Software Developer Intern · Siblings Software

2024

- Delivered features in Express.js and Angular 18 applications from Figma wireframes. Managed changes with Git, Jira and Bitbucket.
- Configured YAML CI pipelines, wrote linter rules and unit tests to maintain code quality.

Senior Research Associate · DMC Biotechnologies · Associate Scientist · Neva Analytics

Prior, 10+ years

Senior QC Chemist · Huvepharma

- Developed analytical methods, and installed and operated high-complexity instrumentation in regulated pharmaceutical and biotech environments.
- Validated workflows and computer systems for efficiency and regulatory compliance. Led investigations, wrote technical reports and supervised laboratory staff.

SELECTED PROJECTS

CQRS service architecture

Graduate project · in progress

Command/query separation with event sourcing for a grid-operations domain.

Sudoku Sage

Python · Flask · SQLite · JavaScript

Full-stack web application built by a team.

P2P retail database

MySQL · schema design

Relational database for a peer-to-peer retail application.

Mining SWITRS for AI safety

Python · data mining · github.com/Micah614

Statistical analysis of California collision records to assess the safety impact of AI-assisted and autonomous vehicles.

CNN classifier for cancer detection

Python · deep learning

Convolutional neural network image classifier for metastatic tissue.

Arduino garden monitor

IoT · embedded

Sensor monitoring for an indoor hydroponic garden.

TECHNICAL SKILLS

Languages

Python, TypeScript, JavaScript, SQL, C++, Java, Scala, HTML/CSS

Frameworks

Node.js / Express, React, Angular, Flask, Selenium

Data & AI

Data mining, data science, machine learning, relational databases (MySQL, SQLite)

Practices

OOP, data structures & algorithms, REST APIs, unit/integration/UI testing, CI, Linux & PowerShell scripting, Agile

EDUCATION

M.S. Computer Science · in progress

B.Sc. Applied Computer Science, cum laude · University of Colorado Boulder

B.Sc. Chemistry (Biochemistry / Molecular Biology) · University of Alaska Fairbanks

References and phone number available upon request.