

Abraham White

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in whiteabelincoln

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Education

Utah State University

BS Computer Science, Mathematics Minor

Logan, UT

Aug 2015–Dec 2020

Experience

Campbell Scientific, Inc.

Software Engineer II

Logan, UT

Apr 2021–Present

Developed a cloud-based measurement observation platform which will replace the countrywide observation network for the Netherlands' meteorological agency (KNMI). Developed an Automated Weather Observing System (AWOS/ASOS) platform, for use by the FAA & NOAA in over 600 airports in the United States and other airports worldwide.

Responsibilities included:

- Collaborate with team and architects to create REST and GraphQL backend APIs, written in Go
- Develop AWS-based Kubernetes infrastructure by creating Kong and KNative API services and maintaining internal Helm charts
- Create a platform for user-created "dashboards", displaying live and historical measurement data with various widgets.
- Implement weather algorithms and sensor drivers in C++, based on customer-provided specifications
- Create websocket RPC APIs to integrate a Vue frontend with a C++ backend
- Lead standup meetings and sprint reviews as a backup scrum master

Notable achievements:

- Added our platform's first GraphQL-based API, used to subscribe to incoming data events. Care was taken to ensure that clients of this "highly-available" API received events even in the case of Kubernetes node failure and that the API worked with existing KNative services and Kong ingress.
- Created a framework for creating VT-220 terminal UIs, used by our legacy AWOS application. This framework used a declarative component-based architecture, similar to Vue or React, which lowered the barrier of entry for our frontend developers.
- Created a programmatic schema-driven UI for editing our application's configuration. This allowed users to edit config using a web page with real-time validation, an improvement over editing a yaml file and attempting to run the app. Defining a configuration schema simplified parsing & validation in the C++ backend, and allowed sharing config with our Typescript frontend.

My Financial Foundations, LLC

Self-Employed

Logan, UT

Apr 2019–Apr 2021

Contracted with My Financial Foundations, LLC to build their insurance and financial services platform, consisting of:

- Client-facing forms and general insurance information
- A system for insurance agents to track client progress, analyze data, and generate PDF reports.
- Editable content with NetlifyCMS, payment processing using Stripe, and infrastructure through AWS (Amplify, Cognito, Lambda, and DynamoDB).

Shingo Institute

Senior Developer

Logan, UT

Dec 2017–Apr 2021

Developed and maintained an international event portal used by over 27 affiliate companies, and:

- Supported back-end API systems written in Node.js, cloud virtual servers, and public web pages
- Containerized microservices and web-applications using Docker
- Wrote automated unit and integration tests to enable continuous application deployment
- Refactored a GRPC and microservices backend to a monolithic architecture
- Mentored a junior developer through code reviews, standups, and training

Computer skills

Web Tech: Vue.js, React, HTML, CSS, SASS

Languages: Typescript, C++, Golang, Python, Rust

Databases: PostgreSQL, MySQL, Redis, FoundationDB

DevOps and Tools: K8s, Helm, Git, Linux, POSIX sh