# **Albert "AJ" Snow**

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## **Technical Experience**

Languages: JavaScript, PHP, Clojure, Java, C#, Rust, Python

Tools/Frameworks/Libraries: Node.js, Express, React, MongoDB, Docker, Spring Boot, Typescript, MySQL, GCP, Kubernetes

**Skills**: Microservices, Software Architecture, Database Design, API Design, Project Modeling, Algorithm Analysis, ETL, OOP, MVC, Functional Programming, Testing

### **Work Experience**

Backend Engineer 2022 - 2023

Peerspace

- Operated in several Clojure and JS (Node.js + Express) micro-services which utilized MongoDB storage and GCP hosting
- Enhanced features and facilitated communication between services via two primary communication protocols
  - \* Direct calls were handled through restful APIs
  - \* Async calls leveraged Google's Pub/Sub architecture; typically to persist data in time-insensitive case
- Interfaced regularly with Kubernetes and Docker systems to deploy software images for testing and software releases
- Collaborated with teammembers to create design documents for new and legacy features
- Enhanced and standardized development environments by various initiatives
  - \* Updated or added outdated documentation across various services
  - \* Added dev configs to streamline and improve feedback/REPL loops
  - \* Added testing frameworks (e.g. Jest, clojure.test) and core tests to untested repos
  - \* Standardized deployment methodologies for versioning
- Optimized, refined, and standardized MongoDB schemas to accommodate new feature development
- Debugged complex issues involving multiple over-the-wire processes across the system (e.g. when inconsistent data fired faulty events)

**Software Engineer 2.5** 2019 – 2022

Paycom

- Perform full stack (JS/PHP) operations, including creating a backend API and writing user-facing scripts
- Utilized MVC style framework, OOP style design, and software was regulated (ISO 9001:2015, SOX, PII)
- Lead initiative to design a new core feature on our team that added ability to customize *all* fields on company position; widely adopted by clients after release
- Expand various module features by adding data customization, new workflows, and new api routes
- Push performance improvements such as code optimization, query aggregation, and ORM optimization (e.g. 100x speeds)
- Create DB designs based on feature requests and employ various data modeling and software design techniques
- Redesign the code structure in various parts of my code domain (e.g. refactoring code from 1k lines to 200)

#### **Education**

Kansas State University (2019)

Bachelor of Science in Computer Science (3.8 GPA)

#### **Projects**

Personal Website (CLJS, Fulcro)| A personal website using ClojureScript and the Fulcro framework for personal useHotshot (CLJS)| Basic API to solve a fun math case; utilized Calva for Interactive ProgrammingFlower Website (JS/TS/CLJS)| Website project written in JS/TS/CLJSSpring Boot State Machine (Java)| Exploratory project to grok the Spring Boot framework. Uses H2 and REST APIGame Jam Unity Project (C#)| Small game built by me in a weekend featuring lightbulb-themed puzzle platformingModded Minesweeper (Python)| Minesweeper but I added a feature to subtract numbers based on flagging

Open source contributions made to Fulcro's Template here: github.com/fulcrologic/fulcro-template. I added the ability to compile and deploy a prod ready uberjar for a project when it's ready to be released.