# Albert "AJ" Snow

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## **Technical Experience**

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

**Tools/Frameworks/Libraries**: Spring Boot, JUnit, H2, MySQL, MongoDB, Docker, Kubernetes, GCP, Node.js, Express, React, Git, PostgreSQL

**Skills**: SDLC, Software Architecture, Database Design, OOP, MVC, API Design, REST, Project Modeling, Algorithm Analysis, CI/CD, ETL, Functional Programming, Microservices, Software Testing, DevOps, Polygot, Agile

## **Work Experience**

Backend Engineer 2022 - 2023

Peerspace

- Operated in several Clojure and JS (Node.js + Express) microservice web applications which utilized MongoDB storage and GCP hosting
- Led team initiatives to implement requested features for top clients
  - \* For example, calendar sync, resulting in 30% initial adoption and positive post-release feedback via CX team
- Facilitated communication between services via two primary communication protocols
  - \* Direct calls were handled through REST 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 and scope design documents for new and legacy features
- Enhanced and standardized development environments via various initiatives (e.g. documentation, tests, dev configs)
- · 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 II 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, SQL 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 (3.7 GPA)

### **Projects**

Personal Website (CLJS, Fulcro)
Spring Boot State Machine (Java)
Order State Machine (C++)
Hotshot (CLJS)
Game Lam Unity Project (C++)

Game Jam Unity Project (C#)
Thermal Modeling (Python)
Utility Functions Library

A website using ClojureScript and the Fulcro framework for personal use

Exploratory projects in spring boot; I also implemented a pattern matching feature Example CLI state machine to experiment with core ETL concepts in C++

Basic API to solve a fun math case; utilized Calva for Interactive Programming.

Small game built by me in a weekend featuring lightbulb-themed puzzle platforming

| College concurrency project; helped Graduate student parallelize modeling code | Repo for experimental code concepts meant to be transferable between languages

### **Open Source Contributions**

**Calva** | Collaborated with the lead dev to squash a bug preventing windows users from quick-booting the plugin | Added a feature and documentation to the Fulcro template to build and deploy a production-ready uberjar