# Albert "AJ" Snow

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## Technical Experience

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

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

**Skills**:  Software Architecture, Database Design, API Design, Project Modeling, Algorithm Analysis, CI/CD, MVC, Functional-Programming, Microservices, ETL, OOP, TDD

## Work Experience

**Back-End Engineer**                                                                        May 2022 - June 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 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
- Crafted API contracts with front-end teammembers and scoped 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**                                                                    June 2019 – March 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 website using ClojureScript and the Fulcro framework for personal use*
**Spring Boot State Machine** *(Java)*    | *Exploratory projects in spring boot; I also implemented pattern matching*
**Order State Machine** *(C++)*    | *Example CLI state machine to experiment with core ETL concepts in C++*
**Hotshot** *(CLJS)*    | *Basic API to solve a fun math case; utilized Calva for Interactive Programming.*
**Game Jam Unity Project** *(C#)*    | *Small game built by me in a weekend featuring lightbulb-themed puzzle platforming*
**Thermal Modeling** *(Python)*    | *College concurrency project; helped Graduate student parallelize modeling code*
**Utility Functions Library**    | *Repo for experimental code concepts meant to be transferable between languages*

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.