

# 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, PostgreSQL

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

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## 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 teammates 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)
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## Education

Kansas State University (2019)

Bachelor of Science in Computer Science (3.7 GPA)

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## Projects

<b>Personal Website</b> (CLJS, Fulcro)	A website using ClojureScript and the Fulcro framework for personal use
<b>Spring Boot State Machine</b> (Java)	Exploratory projects in spring boot; I also implemented pattern matching
<b>Order State Machine</b> (C++)	Example CLI state machine to experiment with core ETL concepts in C++
<b>Hotshot</b> (CLJS)	Basic API to solve a fun math case; utilized Calva for Interactive Programming.
<b>Game Jam Unity Project</b> (C#)	Small game built by me in a weekend featuring lightbulb-themed puzzle platforming
<b>Thermal Modeling</b> (Python)	College concurrency project; helped Graduate student parallelize modeling code
<b>Utility Functions Library</b>	Repo for experimental code concepts meant to be transferable between languages

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## Open Source Contributions

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