

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

April 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 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 teammates 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

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, 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

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| 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 a pattern matching feature |
| 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

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