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

Work Experience

Back-End 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
- 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, 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)*	*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

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*