Albert "AJ" Snow

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Technical Experience

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

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

Skills: SDLC, Software Architecture, Database Design, API/REST, CI/CD, MVC, Declarative Programming, Microservices, ETL, OOP, Testing, DevOps, Polygot, Agile

Work Experience

Senior Software Engineer   Feb 2024 - Present
Center for Translational Data Science (CTDS) at University of Chicago
- Built API based on the principal architect's design doc; assumed code ownership with zero reported bugs to date
- Redesigned a complex metrics analysis tool for an AI research project lead directly by the CTDS's Director
- Automated manual ETL ingestion workflow, reducing content delivery turnaround from one week to one day

Back-End Engineer 3   April 2022 - June 2023
Peerspace
- Led team initiative to implement a calendar sync feature resulting in 30% adoption and positive feedback via CX team
- Independently developed new feature sets in several Clojure and JS (Node.js + Express) microservice web applications
- Employed REST API and event-driven asynchronous communication protocols to streamline the development process
- Eliminated downtime of versioned services via orchestration through CI/CD pipelines with Kubernetes and Docker
- Collaborated with team members and stakeholders to translate and scope features into technical design stories
- Initiated new company procedures to refine and increase development productivity, including writing 200+ new tests
- Supported new feature growth by seamlessly optimizing, refining, and standardizing schema designs in MongoDB
- Cut business expenses by leveraging advanced problem-solving techniques to identify and debug software faults

Software Engineer 2   June 2019 – March 2022
Paycom
- Led design of a core feature that allowed dynamic job field customization; reported adoption rate of 80% from clients
- Developed software features with a team size of ~17 in an code domain of over 500k+ lines of code
- Saved on development costs by abstracting code design; e.g. refactoring code from 1000 to 200 lines
- Adhered to software and procedural regulations (ISO 9001:2015, SOX, PII) while developing and storing sensitive data
- Enhanced software services by developing 200+ endpoints for backend APIs, user-facing scripts, and ETL workflows
- Lowered client wait times by up to 100x by optimizing code, aggregating SQL queries in MySQL, and optimizing ORMs
- Introduced new data storage designs; employing data modelling techniques to store more than 30 new DB schemas

SDET Internship   June 2018 – December 2018
Xpanxion
- Developed a prototype client project in Java in addition to taking 300+ hours of additional Java internship coursework
- Worked with mentor to automate 100+ client's C# tests resulting in a ~15% reduction in cycle times
- Attended over 60 team sprint meetings; discussing project objectives, focus, and implementation strategies

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 | *Code designs that are transferable between languages; inspired by lodash and clojure*

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*