Alan Cho
Software Engineer

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💼 TECHNICAL EXPERIENCE

Software Engineer & Co-Creator, Pinniped 🔗   2024

Pinniped is an open-source backend-as-a-service optimized for Node.js developers.
- Created a schema management system with a metadata storage mechanism, migrations, and custom table models (SQLite, Knex.js).
- Automated the creation of a dynamic REST API (Express, Node.js, REST).
- Built custom middleware to leverage the schema management system within the HTTP request-response cycle for access control and data validation (Express).
- Architected a local extensibility framework to extend the functionality of the backend beyond standard REST operations through an event-driven architecture (Node).
- Crafted an administrative user interface for creating schema, managing users, performing database backups, and monitoring HTTP requests (React, Vite, Axios, Wouter).
- Designed an SDK to facilitate frontend interactions with Pinniped's REST API (REST, Axios, npm).
- Developed a deployment pipeline CLI tool to create, manage, and deploy applications to AWS EC2 (Node.js, JSON, AWS EC2, AWS SDK V3, SSH, SFTP).
- Secured deployed applications by automatically fetching and monitoring SSL certificates, and utilizing industry-standard security middleware (HTTPS, SSL, CORS, XSS, Let's Encrypt).
- Collaborated with a remote team of 4 engineers using Agile methodology.
- Established team workflows and best practices including issue tracking, unit testing, and code modularity (Git, Github, Jest).
- Authored technical case study discussing project implementation, tradeoffs, limitations, and architecture.

Software Engineer, Self-Employed   2022 – 2024

Developed open-source applications including:
- *Presto Requesto* - Application for creating and monitoring webhooks (DO Droplet, Nginx, MongoDB, Node.js, Express, React, Vite).
- *Bowling League Manager* - Full stack application for managing rosters, scores, and player info (PostgreSQL, Node.js, Express, Pug, Handlebars).

🧠 SKILLS

Languages
JavaScript, Golang, SQL, HTML/CSS

Libraries & Frameworks
Node.js, Express, React, Jest, Knex.js

Databases
PostgreSQL, MongoDB, SQLite

Cloud & Tools
AWS, Digital Ocean, Docker, Git/GitHub

🎓 EDUCATION

University of Texas at Dallas, B.S. Neuroscience   2019 – 2023