

ALEX SILVER

Software Engineer

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Experience

Software Engineer Lead, Platform, *Smart Edge (Irvine, CA)*

May 2018 - Present

- Contribute to the edge compute (MEC) platform architecture, such as Docker microservices and remote platform management.
- Elicit "best practices" for engineering teams related to Go package structure, state idempotency and test-driven development.
- Apply security principles to the platform, including the use of X.509 certificates, IPsec and TLS to improve our security posture.
- Oversee growth of enterprise and community (open source with Intel) editions of the platform, managing feature scope.
- Lead local and remote development team collaboration, encouraging methods such as pair programming and peer reviews.

Software Engineer, Platform, *Smart Edge (Irvine, CA)*

September 2016 - May 2018

- Designed edge API with a WebSocket-based pub-sub bus to allow edge apps to consume events emitted from co-located apps.
- Implemented networking functionality in an Agent to control IPsec (IKEv2) and firewall (IPTables) configuration automation.
- Contributed to schemas for internal APIs (Protobuf & gRPC) and external APIs (JSON & HTTP REST) to ensure ease of adoption.

Software Development Engineer, *XXIV (Calabasas, CA)*

July 2012 - June 2016

- Worked with event clients to design strategies for web and e-commerce presence to improve their digital productivity.
- Designed tooling for inventory and quotes to help aggregate known prices across vendors and produce more accurate quotes.
- Maintained a ticketing system for events to improve credential (badge) issuance and yield more efficient event check-in.

Software Engineer in Test (Intern), *Numecent (Irvine, CA)*

November 2015 - June 2016

- Consulted development teams in order to diversify test plans with methods such as black box, white box and acceptance tests.
- Executed test plans to exercise the main software products, including the Cloudpaging Server, Player and CDN applications.
- Automated testing of persistence, using methods such as database bootstrapping and seed data to improve test case coverage.

Skills

Languages: Go, Java, Python, C, C++

Tools: GitLab & GitLab CI, GitHub & Travis CI, JIRA, VSCode, PlantUML, Vault, AWS (EC2, S3, R53, ELB, CloudFront)

Technologies: Docker, Linux (CentOS, Ubuntu), strongSwan (IPsec), TLS Mutual Auth and X.509 Certificates, WebSockets, JSON & HTTP REST, Protobuf & gRPC, MySQL, TCP/IP, 3GPP EPC/CUPS, DNS, Rsyslog, Statsd, IPTables

Methodologies: Agile, CI/CD, Git, microservices, public key infrastructure (PKI), semantic versioning (SemVer), test-driven development (TDD), edge computing (MEC), software agent pattern

Education

B.S. Computer Science, *University of California, Irvine (Irvine, CA)*

September 2012 - June 2016

- **Specialization:** Information Systems
- **Relevant courses:** Projects in Algorithms, Projects in Databases & Web Applications, Next Generation Search Systems, Machine Learning & Data Mining, Image Processing, Design & Analysis of Algorithms, Data Structures Implementation & Analysis, Programming in Python/Java/C/C++