

EXPERIENCE

- **Saleae Inc.** San Francisco, CA
Full-Stack Software Engineer November 2019 - Current
 - Reduced single-frame render time by 50% for a 400 Ms/s mixed-signal oscilloscope rendering pipeline written in C++ and Typescript
 - Developed a Typescript library to upgrade and downgrade more than 100 typescript types across software versions
- **Bridgewater Associates** Westport, CT
Security Software Engineer June 2018 - November 2019
 - **Insider Threat Investigation Toolset:** Engineered investigation tools to mitigate insider threat attack vectors
 - * Engineered a set of 3 investigation tools to mitigate insider threat attack vectors
 - * Built data collection services for AWS, Azure, and on-site endpoints including Exchange, S3, RDS, and SAML via SSO
 - * Engineered a GraphQL backend interface to access millions of graph nodes and relationships persisted in Neo4j
 - * Lead five investigators through training on new investigation tools in less than two weeks
 - **Proxy Policy Configuration Engine:** Built tracking and auditing software for proxy policy exceptions
 - * Mitigated risk for over one thousand policy exception by integrating Bridgewater's proxy configuration engine with RSA Archer
 - * Built a proxy configuration engine that tracks over 10,000 active policy exceptions in Go
 - * Designed a yearly audit system spanning across four departments and thousands of active audit items
 - **Security Infrastructure:**
 - * Reduced container attack surface by 80% by moving AWS build pipelines to Bazel
 - * Built AWS infrastructure to process terabytes of graph data per week
 - * Improved critical infrastructure visibility by 90% through new network visibility tooling
 - * Grew Terraform adoption by 5x through education sessions and team demos
 - * Designed a static code analysis pipeline for over 100 CI/CD pipelines with SonarCloud
- **Mad Mobile** Tampa, FL
Software Engineer October 2017 - June 2018
 - Reduced remediation time across more than 10,000 clients by implementing Sentry.io in React and C++ codebases
 - Reduce downtime by 50% through migrating monolithic Node.js services to AWS lambda micro-services
 - Created a GDPR compliant analytics system for an average throughput of 100k events/second on AWS Fargate
 - Lead adoption of TDD across a team of ten engineers
- **SentinelSix** Columbia, SC
Full-Stack Developer June 2017 - October 2017
 - Implemented geojson capture infrastructure supporting realtime tracking of >10,000 iOS devices
- **TCube Solutions** Columbia, SC
Software Application Developer April 2016 - June 2017

PROJECTS

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- **Eyelang:** A dynamically typed interpreted language written as sentences
 - Designed a language grammar close to english sentences
 - Developed a Rust lexer, parser, and interpreter for Eyelang's grammar
- **Typescript Migration:** Developed a library to manage versions of TypeScript types
- **Switch CMS:** Switch is a modern alternative to out of date and costly cabin management systems.
 - Integrated a React Native mobile app with Global Cache devices to control up to twenty devices over serial and IR
 - Created a plug and play device controller capable of reverse engineering aircraft CAN bus infrastructure to discover and expose device control through a subnet facing service in C++ and Go
- **SkyFlix:** Developed in-flight entertainment software for business jets including some of Boeing's top government customers with React Native and C++

SKILLS

- **Languages:** TypeScript, Rust, Go, Python
- **Cloud Providers:** AWS, Azure, Heroku, Firebase
- **Databases:** MongoDB, AuroraDB, Postgres, Neo4j
- **Standards:** GraphQL, REST, SOAP
- **Software:** Splunk, RSA Archer, Active Directory, Gerrit, GitLab, Rundeck, PagerDuty, Qualys, Jira