

## EXPERIENCE

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- **Saleae Inc.** San Francisco, CA  
*Full-Stack Software Engineer* November 2019 - Current
  - Reduced single-frame render time by 50% for a mixed-signal oscilloscope rendering system in C++ and Typescript
  - Authored a Typescript library to upgrade and downgrade more than 100 typescript types across software versions
  - Led migration to MobX from Redux state management across a team of three engineers
  - Reduced complexity of 100+ React components by improving reuse and composability
- **Bridgewater Associates** Westport, CT  
*Security Software Engineer* June 2018 - November 2019
  - Insider Threat Investigation Toolset:**
    - \* Engineered a set of 3 threat investigation tools with Go and Rust to mitigate insider threat attack vectors
    - \* Built data collection services for AWS/Azure and on-site endpoints for Exchange, S3, RDS, and SAML via SSO
    - \* Engineered a Go GraphQL backend interface to access millions of graph nodes and relationships persisted in Neo4j
    - \* Coached five investigators through training on new investigation tools over three weeks
    - \* Built a WebGL Graph rendering system for hundreds of thousands of nodes and edges in React
  - Proxy Policy Configuration Engine:**
    - \* Managed a proxy configuration engine tracking over 10,000 policy exceptions developed in Go on AWS EKS
    - \* Collaborated with five teams on processes to mitigate risk for over 1,000 policy exceptions
    - \* Defined a yearly audit process spanning across four departments and thousands of active audit items
  - Security Infrastructure:**
    - \* Reduced container attack surface by 80% through refactoring AWS build pipelines to utilize Bazel
    - \* Architected and built AWS infrastructure to process terabytes of graph data per week
    - \* Improved critical infrastructure visibility by 90% through new network visibility tooling
    - \* Lead 5x department-wide growth of Terraform adoption 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
  - 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 data capture infrastructure supporting real-time 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 with a grammar that resembles english sentences
  - Implemented a Rust lexer, parser, and interpreter for Eyelang's grammar
- **Switch CMS:** Switch is a modern alternative to out of date and costly cabin management systems
  - Created a device controller capable of reverse engineering aircraft CAN bus signals to discover device control commands in C++
- **SkyFlix:** Developed in-flight entertainment software for business jets including Boeing's top government contracts with React Native and C++

## SKILLS

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- **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