Taylor Wrobel

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Experience

GitHub, Inc.   **Remote**
Senior Software Engineer   *September 2019–Present*

- Drove re-architecting of the GitHub Packages product and served as technical lead for the GitHub Container Registry
- Established a paved path for products to break out of the GitHub ruby monolith and into a microservice architecture
- Coordinated cross-functionally with teams on authentication, authorization, infrastructure, and other GitHub features
- Lead coordination and debugging of system availability incidents and established high quality observability and alerting

Apple, Inc.   **Culver City, CA**
Software Engineering Manager   *March 2019–November 2019*

- Managed the Platform Test Infrastructure team, a small team focused on providing world class internal tooling within the testing domain to developers across Apple
- Lead development of multiple systems, including a test result data store, email templating service, and BDD style automation test framework
- Met with customers to assess needs and feature demand, and structuring product roadmap accordingly
- Engaged in cross functional and company wide initiatives to improve the culture around producing quality software

Apple, Inc.   **Cupertino, CA**
Software Engineer   *April 2016–March 2019*

- Lead development of a large scale service responsible for the storage, aggregation, and visualization of test results
- Improved performance of critical path operations by over an order of magnitude through data schema, system architecture, and business logic improvements
- Implemented distributed tracing, monitoring, and alerting for applications within the team's domain
- Designed a new major version of the API to improve consistency and performance and organized its rollout

Aurora Technology, Inc.   **San Francisco, CA**
CTO and Lead Engineer   *September 2014–April 2016*

- Founding member of a team working to bring non-predatory automated lending to developing countries
- Designed and implemented a micro-service architecture with focus on scalability, security, and data consistency
- Lead a team of 5 other engineers in writing and deploying a scalable financial services platform
- Enforced good coding practices via required code reviews, documentation, and unit and integration testing

Palantir Technologies   **Palo Alto, CA**
Simulation Software Engineer   *May 2013–September 2014*

- Worked with members of the SSE team to address issues of continuous code delivery and code quality via automation
- Lead development on an automated system to validate integrity and completeness of production data
- Maintained and improved the front-end automation regression tests and infrastructure for the Java client

Palantir Technologies   **Palo Alto, CA**
Simulation Software Engineering Intern   *May 2012–May 2013*

- Created an internal tool to oversee and manage a cluster of virtual machines used for UI testing
- Improved core testing infrastructure and efficiency through modifications made to architecture and implementation

Highlighted Projects

GitHub Container Registry   **Cupertino, CA**
GitHub, Inc.

- OCI compliant container Registry integrated with GitHub, available at ghcr.io
- Tech stack consisting of Golang and Ruby on Rails at the application layer, infrastructure consisting of MySQL, Apache Kafka, and Elasticsearch, and Twirp for server-to-server RPC operations
- Complete re-design of the GitHub Packages product as a standalone microservice external to the GitHub monolith
- 99.99%+ availability, while meeting strict latency requirements
- Integrated seamlessly with GitHub Actions and Codespaces, the GitHub authentication and authorization mechanisms, and internal GitHub infrastructure such as the audit log and search clusters

Test Result Store   **Cupertino, CA**
Apple, Inc.

- Tech stack included Node.js at the application layer, Cassandra for primary data storage, Redis for caching and eventing, and Blob storage for large file storage
- Scaled service up to 200M assertions ingested per week (250x increase from the time I joined)
- Supported both traditional unit and integration tests, as well as synthetic monitoring test results
- Integrated with a mix of OSS and proprietary systems for logging, tracing, app-to-app communication, and authentication

Authentication Proxy   **Cupertino, CA**
Apple, Inc.

- Go HTTP reverse proxy to transparently handle user authentication against Apple's internal authentication system
- Individually authored during nights and weekends, and voluntarily submitted for information security review
- HMAC signing of user data with mechanisms to mitigate MITM and replay attacks
- Feature rich, including multi-tier caching, rate limiting, tracing, multimodal auth support, and logout mechanisms
- Actively used by various production and non-production use cases across the company

Education

Georgia Institute of Technology   **Atlanta, GA**
Bachelor of Science in Computer Science   *2009–2013*

Programming Languages and Tools

Proficiency
- Node.js
- Go
- Git
- Java
- OpenSSL
- SQL

Working Knowledge
- HTML and CSS
- Bash
- C/C++
- Groovy
- Python
- LaTeX

Skills

Distributed Systems Concepts: Raft, Paxos, CRDTs, CAP/PACELC, 2 Phase Commit

Data Structures: Lists, Trees, Graphs, Hash Tables/Maps, Hash Chains, Heaps, Concurrent Data Structures

Algorithms and Paradigms: Graph Theory, Sorting Algorithms, Concurrency (CSP, Shared Memory, Callbacks)

Data Systems: Cassandra, CockroachDB, Redis, NATS, MySQL, PostgreSQL, Apache Kafka

DevOps Platforms: Kubernetes, Jenkins CI, AWS (EC2, ElasticBeanstalk, RDS, SQS), Zipkin, Splunk, ELK (ElasticSearch, Logstash, Kibana)

Managerial: Nonviolent Communication, Implicit Bias Awareness, Behavioral Interview Experience, Inclusion & Diversity