Tyler Powers

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10+ years of experience building large, complex mobile and/or web products in specialized, small teams. I value pragmatism, accountability, creativity, and continuous learning.

Technical Skills

Languages	Python, Typescript, C, C++, Swift, Dart, JS
Infra	Kubernetes, Terraform, Ansible, OpenTelemetry, haproxy, nginx
Data	Postgres, DuckDB, MongoDB, Kafka, Redis, Sqlite
Web	FastAPI, Express, GraphQL, OpenAPI
Build	Bazel, Turborepo, Webpack, CMake

Experience

The Bank of London — Remote
Senior Platform Engineer, Full-stack — *2021 Nov - 2023 Jan*

> API / Platform team member; worked closely with infrastructure and core services teams
> Developed a self-service API portal with live sandboxes, client codegen, docs
> Many of my contributions improved velocity for all teams and contributors across engineering
> Migrated seperate repos (14 microservices + 1 FE) to a monorepo; packaged shared code into modules
> Setup build system config (turborepo) for the new monorepo
> Setup CI/CD pipeline for deployments of all services to prod, test, dev
> Setup local development stack for 14 services w/ docker-compose
> Implemented kafka event streaming for critical inter-service communication
> Implemented distributed tracing (OpenTelemetry) for all services, enabling faster debugging
> Interviewed ~40 candidates

`Typescript` `GraphQL` `Express` `Kafka` `Redis` `MongoDB` `Kubernetes` `OpenTelemetry` `OpenAPI` `NextJS` `React` `Monorepo`

Fluxweave — Remote
Lead Software Engineer — *2020 Dec - 2021 Jun*

> Lead developer for data-heavy, feature-rich geo-based social networking application
> Defined tasks from loose business / product requirements from the client, refining details iteratively
> Setup CI/CD pipeline for pushing releases to Google + Apple stores
> Implemented rendering for custom layers on geo / map views
> Implemented networking + caching layer to keep websocket event stream + graphql calls in sync
> Implemented many things in dart that did not exist due to early adoption
> Evaluated code quality of bleeding edge libraries, to be congruent with scala platform implemention
> Maintained a whitelabel Typescript + React web client to keep feature parity with platform updates

`Typescript` `GraphQL` `Dart` `Flutter` `React` `Android` `iOS`

Opencraft — Remote
Full-stack + DevOps — *2019 May - 2020 Jun*

> Deployed customized instances of the Open edX platform for various universities and startups
> Debugged application / infra failures using ELK stack, New Relic, Grafana dashboards

> Used ansible to configure server roles for monitoring (prometheus exporters), service discovery (consul), log shipping (filebeat), and backups

> Participated in routine infrastructure maintenance - example, replacing an HAProxy load balancer

> Full-stack dev on core features of LabXChange, a greenfield online learning platform, using Python + Django, and Typescript + React + Jest + Pupeteer

> Helped improve the GitLab CI/CD Pipeline for LabXChange, which deployed to separate Kubernetes clusters for each environment

> Improved end-to-end testing automation for LabXchange to prevent non-deterministic failures

> Contributed to Django-based tool for provisioning customized Open edX instances on OpenStack VMs

Ansible · Terraform · Python+Django · Typescript+React · haproxy · PostgreSQL · MySQL · ELK · Prometheus · Grafana · New Relic

Otherworld
Senior iOS Engineer

Remote
2018 Jun - 2019 Jan

> Improved project maintainability by identifying tech debt and creating roadmaps for refactors

> Implemented features related to image processing of camera / video content, navigation, feed, media presentation, messaging, deep linking, analytics

> Reduced compile times from 5 minutes to 45 seconds by modularizing the codebase and implementing dependency injection

> Worked closely with the project manager to improve our process, tools, and techniques related to sprint planning, task breakdown, and project tracking

> Coordinated with server engineers to design APIs for new features

Swift · iOS · Python

UNSTATIC Tech
Senior 3D Developer

London (Remote)
2017 May - 2018 Jun

> Developed C++ applications that generate data for architectural lighting control

> Designed software architecture for the C++ side of the platform, established patterns and refactored to improve maintainability and readability

> Developed generative algorithms and computer graphics routines used to feed data to lamps and LED walls

> Developed GUI with React + Redux, embedded into the C++ app with Chromium Embedded Framework

> Worked with lighting designers to execute visual concepts for specific customer needs

> Developed various servers in nodejs to clean and transform data from disperate sources (such as public transporation) that the C++ apps could use conveniently

> Developed web interface for customers to control visuals generated on the C++ side

> Deployed applications to Linux-based servers which controlled lights on skyscrapers

> Migrated C++ codebase to CMake to ease cross-platform build process

C++ · OpenGL · Javascript · React · Redux · GLSL · WebGL · NodeJS · Linux

Mentally Friendly
Senior Software Engineer

London, UK
2015 Sep - 2017 Mar

> Played a key role in making technical decisions around application architecture, tooling, and workflow for various projects

> Encouraged knowledge transfer and opened up communication across platform-specific developers by proposing programming paradigms, design patterns, generic abstractions, and testing practices which are useful regardless of platform

> Developed several native mobile products, with a couple of projects in React Native, and one in C++

> Deployed servers to transform data when APIs deviated too far from what mobile client needed

> Was actively involved in product UI/UX design discussions

iOS · Swift · Objective-C · React Native · NodeJS · OpenFrameworks · C++

Carbon Five   **San Francisco, CA**
Software Engineer   *2015 Jun - 2013 Dec*

> Developed much of the core architecture and flagship features for Thumbtack's 2 iOS applications

> Taught experienced developers coming from a web background how to be productive on iOS, explaining the idioms and tools

> As the team grew (about 8 iOS devs, 4 server devs), I played a key role in making technical decisions around application architecture, tooling, and workflow, helping to keep our team as a whole productive and making it easier to bring new developers on board

> Was actively involved in design discussions both from a technical application architecture standpoint, and a product UI/UX standpoint

> Participated in code reviews, merged pull requests

> Established application architecture and design patterns as an early developer for C5's client, Thumbtack

> Used Behavior-driven development practices. Unit tests, functional tests, and UI tests covered a large percentage of the codebase.

> Developed on the server side in Python + Pyramid when the project was bottlenecked by the server-side backlog

> Ensured Continuous Integration server (TeamCity) ran tests across all device versions and for both iOS 7 and 8 to prevent device-specific bugs

Objective-C | iOS | Python

CrowdCompass   **Portland, Oregon**
Software Engineer   *2012 May - 2013 Sept*

> Developed the iOS client with 3 other iOS engineers, working with the backend, dev ops, android, and design teams

> Learned to work as a group to make important decisions about large refactors and architecture/software design

> Participated in code reviews to share knowledge and gain feedback about how to produce more quality code

> Implemented or improved many of the core features that define the application today, including image and geo maps, theming, data synchronization, notifications, photo gallery, custom URL routing, ORM, database encryption, REST API's, social sharing, etc.

> Improved release quality by automating integration testing of core features using calabash testing library + a mock server written in sinatra/ruby running on nginx/phusion passenger

> Helped maintain and improve continuous integration environment (Jenkins) and automate complex build processes

> Learned how to track my time and give estimates for feature implementations, working with a ticketing system

> Learned how to performance tune iOS applications and watch out for memory leaks with Instruments

> Became more proficient with many developer tools including git, vim, zsh, bash, and various unix utilities

Objective-C | iOS | Ruby

Education

Bachelor of Science, Information Technology   *2005 - 2009*
University of Arkansas
GPA: 3.6 of 4.0