TYLER A. YOUNG

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Work Experience

SENIOR SOFTWARE DEVELOPER
December 2021 – Present

Felt Maps, Inc.
Remote

- Led major projects, coordinating the work of 4-6 people at a time, early in the life of a product-led growth company
- Contributed to both the Elixir + Phoenix backend & TypeScript + React frontend for our collaborative mapmaking tool
- Used observability tools to improve the reliability of the app, especially our Phoenix Channels communication (see my ElixirConf 2022 presentation)
- Regularly executed large-scale, zero-downtime database migrations of tens of millions of rows
- Diagnosed and fixed performance problems on the backend

SOFTWARE TEAM LEAD
June 2021 – December 2021

Generac Grid Services
Remote

- Managed a team of 7 delivering features & fixes to large energy utility customers
- Contributed to our Elixir backend, using OTP features like process isolation, supervision trees, error recovery, & more
- Contributed to our Elm-based web frontend, communicating with the back-end via GraphQL
- Overhauled our CI setup for better developer feedback and a 30% reduction in test times
- Improved scalability & performance through both BEAM and Postgres optimizations

LEAD APPLICATION DEVELOPER
June 2020 – August 2021

Unbound Photo Browser for Mac
Self-Employed

- Rescued the app after years of neglect by the previous developer, fixing dozens of crashing bugs & delivering much-requested new features, leading to a 50% increase in the Mac App Store's average rating in 6 months
- Began transitioning the legacy Objective-C & AppKit codebase to Swift (and SwiftUI, where appropriate)
- Overhauled marketing to improve user perception & better explain unique selling proposition

SENIOR SOFTWARE ENGINEER
May 2014 – February 2021

Laminar Research
Remote

- Designed & implemented both the C++ client & Elixir server for X-Plane's massive multiplayer network, capable of supporting 10,000+ simultaneous players in a single shared world (Elixir-Lang.org case study)
- Reimagined the user experience for the X-Plane 11 release: in addition to a sleek new look, I overhauled the UI to be heavily visual and entirely interactive, where before it was static, text-based, and unintuitive
- Created an automated testing suite for X-Plane Desktop, and deployed a continuous integration cluster
- Developed GIS algorithms for building global scenery for X-Plane Mobile

WEB DEVELOPMENT CONSULTANT
January 2013 – April 2014

Conversion Insights, Inc.
Self-Employed

Open Source

- Contributed Enum.slide/3 for the Elixir 1.13 standard library
- Open-sourced Elixir implementation of the RakNet protocol for reliable UDP networking
- Fixed a memory leak in the Bloom filter used in DuckDuckGo's iOS app

Writing & Presentations

- Presented Delightful Multiplayer Editing with Phoenix at ElixirConf 2022
- Presented Designing GenServers for Testability at ElixirConf 2021
- Wrote about why I chose Elixir for X-Plane massive multiplayer server

Education

TRUMAN STATE UNIVERSITY
Graduation Date: May 2013

B.S. in Computer Science, minor in Mathematics
Cumulative GPA: 3.9