

Jacob T Fischer

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github.com/JacobFischer
St. Louis, MO.

I seek to temper a passion for technology by always experimenting with the latest the industry and academia have to offer through programming; specifically in software engineering, systems design, and web development.

Education

Master of Science

Computer Science

[Missouri University of Science and Technology](#) — 2015 - 2017

Graduate work in Software Engineering & AI development, research, and implementations

Bachelor of Science

Computer Science

[Missouri University of Science and Technology](#) — 2008 - 2012

Experience

ePlata, LLC.

eplata.com

Software Developer — 2017 - Current

Startup working primarily in Full Stack development using Node.js to make a cross platform financial app leveraging Cordova for Android, iOS, and Web platforms

- Full stack JavaScript/TypeScript development and DevOps for front end, back end, and cloud infrastructure
- Modern JavaScript, Babel, React, and Material Design via Material UI framework and styled components for the front end
- Node.js, Express, Redis, GraphQL, and MSSQL on the back end
- Cloud stack utilizing Amazon Web Services (AWS) with multiple ECS Docker containers across regions monitored with Sentry, Logz.io, and builds using AWS CodeBuild
- Wrote Webpack plugins to improve developer workflow by automating build steps and improve performance by moving runtime costs to build time
- Updated Express REST APIs to GraphQL queries for improved performance, type checking, and code quality
- Improved server and client speed by chunking build and utilizing loadable code and components
- Modernized JS code to use async/await syntax and Flow/TypeScript types
- Offloaded multi-lingual strategy to build time string compilation instead of run time string building
- Rewrote server-side rendering to stream responses to improve response time and pre-cache most highest impact queries
- Performed DevOps tasks such as improving continuous integration, deploying builds, and improving development workflows
- Wore many hats and did much outside a traditional software engineering role being a small startup with big ambitions

Software Engineer – 2013 - 2014

Developed many different event management programs across utilizing web and Microsoft technologies

- Assisted with multiple larger teams to update deprecated WinForms software to VB.Net Silverlight full stack
 - Completed performance profiling to identify slow forms and virtualize them
 - Worked on small team to quickly create and deploy new event registration sites for clients with a variety of needs
 - jQuery, JavaScript, HTML, CSS, and a proprietary framework for the front end
 - ASP.Net back end using VB.Net, C#, and MSSQL
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Skills

Programming	JavaScript (ES6+), TypeScript, HTML, CSS, SASS/SCSS, Python 2/3, JSON, SQL, C++, C#, Java, Go (Golang), YAML, Lua, RegEx, Shell, VB.Net <i>always eager to learn many more!</i>
Frameworks	Android, iOS, Node.js, npm, React, Babel, Material UI, Webpack, Lerna, Mocha, Jest, GraphQL, PixiJS, Express, jQuery, Lodash, OpenGL, Moai, CodeIgniter, Wordpress, ASP.NET MVC, Silverlight
Databases	MySQL, Microsoft SQL Server (MSSQL), SQLite, PostgreSQL, MongoDB, Redis
Project Management	Git, GitHub, Trello, Jira, Slack, Travis CI, Circle CI, Jenkins, DevOps, OKR
Other	Microsoft Office, Google Docs; Adobe's PhotoShop, Illustrator, and Premier

Technical Activities

Cadre AI Framework

siggame.io/Cadre

Master Degree software engineering project(s), with continuing development and enhancements to this day
Designed and implemented a new framework for creating and playing games with Als across a variety of programming languages and platforms

- Created AI clients in C++, C#, Go, Java, JavaScript, Python, Lua, and TypeScript that all must interact with JSON, networking sockets, reflection, threading, and documentation systems
- Game server implemented via Node.js with JavaScript/TypeScript and Express facilitating TCP/WS/HTTP connections over clustered threads
- Visualizer to playback game log files in browser using PixiJS, Webpack, jQuery, TypeScript, and SCSS
- Python metaprogramming tool to speed up development of common game logic between all projects via code generation and mutation
- Battle tested in multiple programming competitions with a wide range of games and competitions, some with human player(s)

npm Packages

npmjs.com/~jacobfischer

Maintains a set of JavaScript, TypeScript, and C++ (native) packages for Node.js

- Maintains a variety of packages across domains
- Performs expected maintenance, including addressing issues, merging pull requests, and publishing new releases
- Also contributes to other open source packages such as [DefinitelyTyped](https://github.com/DefinitelyTyped/DefinitelyTyped)