

TJ Horner | Software Engineer | Redmond, WA

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TECHNICAL SKILLS

Strong: Ruby on Rails, JavaScript/TypeScript (ES6+), React, Node.js, Golang, Webpack, HTML5/CSS3/SCSS, git, Shell/Bash, Svelte, Google Cloud, Web Extensions, GitHub Actions Automation, Kotlin, Swift, Android, iOS, Azure, Docker, C#.NET, jQuery, Jest, Caddy, Traefik, PostgreSQL

Experienced: AWS, TDD, C, C++, Agile/Scrum, Java, PHP, nginx, Unity 3D, Unreal Engine, Source Engine, Scala, Relational and Non-relational Databases, Blender, Rust, Win32 APIs, Protocol Buffers/gRPC, Apache, Network Design, Redux, Hardware/PCB Design, Embedded Development, Terraform, HashiCorp Suite

PROFESSIONAL EXPERIENCE – References available upon request

Self-Owned Business | Sole Proprietor

2022 – Present

- Self-owned (and self-named) small business where I design and manufacture hobbyist **hardware products**
- Designed and developed the Upsy Desk by **reverse engineering** desk protocols and re-implementing as a custom ESPHome component
- Responsible for all aspects of the business including promotion, marketing, and order fulfillment
- Utilizing experience with **PCB design, embedded software development, and CAD** to create products
- Managing and maintaining **open-source GitHub repositories** for each product for the benefit of customers and the community
- **Writing documentation**, handling customer support requests, with a heavy focus on **UX and customer satisfaction**
- Extremely high customer satisfaction rate with an average **4.94 rating** across all products

Twosense | Software Engineer

2020 – Present

- Developed native Windows product utilizing Windows APIs including **kernel-level driver APIs**, **.NET 7** service using **clean architecture**, and credential provider APIs
- Used **Rust and gRPC** to modernize inter-process communication between software using different tech stacks on the same Windows machine
- Maintained browser extension product which allows users to bypass MFA by using AI to determine if a user is authentic based on their behavior
- Implemented a variation of **clean architecture** with **TypeScript** for the browser extension
- Created GitHub Actions workflows to automate **continuous integration** for Windows projects, including **test coverage verification** and code quality checks for PRs, and automated builds to improve engineer productivity
- Led the initiative for the full rewrite of our browser extension using **TypeScript, Webpack**, and most importantly, a **maintainable and scalable architecture**
- Implemented a full **end-to-end testing framework** for the browser extension, ensuring maximum code coverage and user happiness
- Stood up and maintained **HashiCorp Vault** and **Consul** instances on AWS using **Terraform** to store and secure secrets for continuous integration and testing

MakerBot | Full Stack Software Engineer

2019 – 2020

- Managed software to connect and manage a monthly average of **50,000 3D printers** concurrently to the internet by utilizing highly scalable RESTful Node.js microservices on GCP with Kubernetes
- Minimized size of printer toolpath file **40-fold** by developing a Protobuf-based file format, increasing user workflow speed by several hours
- **Technical lead** for project involving refactoring legacy server-side-rendering PHP 5.0 back-end with TypeScript React-based front-end, improving speed and performance by **10x**
- Developed internal tools to assist with rapid testing, including a fully-featured 3D printer emulator written in Golang with a React front-end, dramatically reducing development time for new features across all software teams
- Built an internal dashboard to monitor **all MakerBot properties** and services in real-time by utilizing Grafana, Prometheus, and custom Golang-based monitoring tools
- Dramatically improved user experience by implementing RESTful Node.js microservice to allow code-based authentication to several MakerBot 3D printers

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Telegram Messenger | Support Volunteer

2016 – 2019

- Provided user support to hundreds of millions of Telegram Messenger users by **answering their questions, engaging in chats, and providing human touch** to their conversations
- Helped users troubleshoot issues with the Telegram app, providing patient and inquisitive support to help them achieve their goals
- Assisted users with a **wide range of questions and concerns**, from technical issues to general inquiries, ensuring that each user received a **precise and human answer**
- Collaborated with a global team of support volunteers, communicating and contributing to a positive and fun support environment
- Demonstrated communication skills and **customer empathy**, using humor and style to make users smile and feel supported

CodeDay | Full Stack Software Engineer

2014 – 2019

- Decreased wait times at physical events with an average of **4,000 attendees** by developing an app using Android (Kotlin) and iOS (Swift) to allow attendees to check-in automatically
- Increased organizer happiness by creating tools to automate several recurring tasks such as emailing teachers, generating an event summary, etc.
- Connected thousands of attendees to mentors automatically by developing a Rails-based web service
- Allowed teams at physical events to showcase their projects online with a Rails-based web service
- Managed Azure virtual machines to host web services critical to business and event management

SELECTED PROJECTS (Source available on GitHub)

Upsy Desky	Hardware	Connect your standing desk to home automation systems
PCBusiness Card	Hardware	Functional PCB business card using an RP2040
CodeDay Companion	Software	Android and iOS companion app for CodeDay events
JackboxGPT3	Software	Play select Jackbox party games with a GPT-3 powered bot
ArchiveBox Exporter	Software	Web extension to easily send pages to an ArchiveBox instance
schema.tl	Software	Always up-to-date schema viewer for Telegram API

See all projects at horner.tj/projects

INDUSTRY AFFILIATIONS

CodeDay | Board of Directors 2020 – Present