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

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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 Desky 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

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

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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**