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ABOUT ME

I'm a skilled software engineer with **8 years** of experience solving hard problems and building high quality products that people love to use.

I'm an open source author, a leader, and a team player who brings out the best in others.

SKILLS

Leadership, Teamwork, Writing, Communication, Teaching, Agile, Mentoring, Learning, Listening

TECHNOLOGIES

React, React Native, Node.js, Go, Spring Boot, TypeScript, JavaScript, Java, Kotlin, Python, Ruby, Docker, AWS, Kubernetes, Git, GraphQL, Azure, Kafka, MySQL, PostgreSQL, Python, CoPilot, DevOps, Jupyter

EDUCATION

University of Missouri - St Louis, St. Louis, MO (2016 - 2020)
Master of Computer Science

PERSONAL PROJECTS

pdf-lib - Most popular JavaScript library for processing PDF documents. Used by thousands of apps, hundreds of companies, and government agencies around the world. 6,500 GitHub stars and over 1 million weekly downloads.

jsv9000.app - Interactive web app that visualizes and explains JavaScript's Event Loop. Used by instructors and coding schools to help developers learn async JavaScript. 1,100 GitHub stars.

chip - CLI tool that speeds up development by simplifying management of microservices in local environments. Actively used by multiple teams at UniGroup.

WORK EXPERIENCE

GitHub, Remote — Senior Software Engineer

June 2021 - PRESENT

- Team lead and full stack software engineer using React, Ruby, Go, Node, Azure, Kafka, and MySQL in an agile environment.
- Increased team impact by introducing iterative development, demos to users, feedback collection, and measuring results.
- Architected an application and led the team that built it: Used by our analysts to process 2,300 customer tickets per day and reduce platform abuse. 5x reduction in clicks to process tickets. Saved 72,000 man hours and \$7 million per year. Reduced analyst burnout and improved retention.
- Built a system that collects and publishes GitHub's moderation actions to the European Union's DSA Transparency Database. Processes 12,000 actions per month and protects GitHub from \$60 million in legal fines.
- Led a team that built a system which processes 2 million images per day, has taken down hundreds of illegal CSAM uploads to GitHub, and reported the uploaders to the National Center for Missing & Exploited Children.
- Discovered and disabled a network of 160 users uploading 1,500 TB of illegal content. Put together a plan to save GitHub \$300,000 a year spent on storage for users abusing GitHub's services.
- Wrote a high performance image hashing client in C++ using OpenSSL, OpenCV, and an internal Microsoft library.
- Designed, built, and shipped GitHub's content warning system. Protects 100 million users from malicious content and keeps GitHub legally compliant without impinging on legitimate users. Used in multiple high profile incidents: polykill.io, xz-utils.

UniGroup, St. Louis — Senior Software Engineer

NOVEMBER 2019 - June 2021

- Team lead and full stack software engineer using React, Spring Boot, and PostgreSQL in an agile environment.
- Led a team that built a new distribution algorithm and billing system for leads. Grew business for 500 agents and annual revenue by \$3 million.
- Led development team that developed a system for streamlined event scheduling. Connects customers directly to agent calendars. Reduced wait time from from 2 days to 10 hours for over 100,000 customers per year.
- Designed and built a system to configure geographic service areas and distribute leads to agents. Improved CX for thousands of customers and saved the business \$2 million in annual expenses.
- Formed and led team that built a React component library. Improved stability of 10 applications and increased velocity of 7 teams.

UniGroup, St. Louis — Software Engineer

MARCH 2018 - NOVEMBER 2019

- Full stack software engineer using React, React Native, Spring Boot, RabbitMQ, and PostgreSQL in an agile environment.
- Designed and built a full stack web app to pilot a new CX and pricing model. Completed in just 8 weeks. Increased customer conversion rate and translated to \$500,000 in new revenue.
- Designed and built an iOS & Android mobile app used by 1,000 packers to perform electronic inventories in low-connectivity areas. Saved the business \$750,000 previously spent on an error-prone 3rd party app.