

Kashi Vishwanath Bondugula

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SKILLS

Programming Languages: JavaScript, Go, C, Python, TypeScript, Java, HTML, CSS, JSON, YAML, C#
Libraries, Frameworks, Runtimes: Node.js, Bun.js, React, Angular, Express, Electron, Bootstrap, Android, React Native, gRPC
Databases: PostgreSQL, MySQL, SQLite, Mongo DB, Redis
Tools: Docker, Docker Compose, Kubernetes, Kafka, MQTT, Linux (Fedora, Debian), Nginx, Gitlab

EXPERIENCE

Software Developer II at *American Express, NYC* **March 2024 - Present**

- Won **2nd place** in **GoLang Security Competition** out of entire AMEX which included SQL Injections, impersonation etc.
- Contributing to Global Loyalty & Bonus team by migrating code from open-source rules engine (rulio) to an internal upgraded platform written in **GoLang** which consumes events from different **micro-services** via **Kafka** & processes events by applying different rulesets to produce outcomes responsible for issuing rewards & benefits to the customer (Loyalty Points, Credits etc.).

Senior Software Developer at *Quadrus Medical Technologies, NY* **June 2023 – Feb 2024**

- Fortified security of data from medical devices by developing Zcrypt—a cryptographic tool (a CLI, Web App and Shared Libraries) developed in **C** based on Open SSL 3.0 that is **179% faster & 500% less memory** than previous workflows.
- Engineered a conversion pipeline for medical device-generated binary data, transforming it into human-readable CSV files via a custom Scheduler & Resource Manager in **C** and **SQLite**. Included features like Continuity to prevent redundant computations, Parallels for dynamic parallel processing akin to Kubernetes, licensed and distributed in AWS.
- **Reduced cloud costs** by simplifying the cloud architecture & by using the custom scheduler with fine grained control over resources.
- Architected an **SSO** for Quadrus App Suite, managing licenses, subscriptions, invoices etc., backed by an in-house **OAuth 2.0** Server using Authorization Code Grant for authentication & authorization, with support for roles & scopes using **Bun.js & PostgreSQL**.
- Designed & developed an interactive web app for predicting kidney disease for a given patient using **React.js, Node.js, PostgreSQL**, and a Desktop Application for managing Real Time Clock (RTC) dongles using **Electron.js, Python**.

Senior Software Engineer at *KIoT Innovations, Hyderabad, India* **March 2022 – July 2022**

- **Led** the Weather Automation project: An IoT automation based on the weather at customer's home location, built using **Bull** with **Redis** for task scheduling, **Node.js microservices** for actions, workflows, **Ionic + Angular** for UI and Open Weather API.
- Devised a **strategic solution** to optimize systems (Node.js APIs, Mongo DB queries) **performance by 43%** and removed defects in the existing infrastructure, by decoupling queries, monitoring, collecting and analyzing data from Newrelic, load testing with JMeter.
- Maintained & added new features to a cross-platform hybrid application built using **Ionic with Angular** for managing custom IoT devices, smart homes, automations, workflows, etc., which was licensed & sold to 100 businesses.
- Improved **software quality** and accelerated development processes by establishing coding standards and code reviews and implementing Agile methodologies such as Scrum, Continuous Integration, Continuous Deployment, and Continuous Testing pipelines, leading to enhanced productivity and **higher-quality deliverables**.

Full Stack Developer at *Fresh Prints, New York City, NY* **September 2020 – March 2022**

- Built a scalable **Order Management System** for Fresh Prints with features such as invoices, orders, promocodes, gift cards, user management etc., using latest versions of **Angular and Node.js** to accommodate blazing fast expansion of business.
 - Revamped the **SEO by 59%** which boosted sales by 25% through initial page load optimizations, JS code minification, moved deployment to **AWS CloudFront**, updated cache policy, lazy loading, compression of assets, server-side rendering (**SSR**).
 - Drafted a **CI/CD** pipeline using Bit Bucket, Circle Ci, and **AWS ECS** to continuously deploy builds automatically to corresponding environments based on the test suite status on a commit to improve Web Development flow and code reliability.
 - **Optimized** existing REST APIs by refining complex database queries (joins, subqueries) into simpler ones & caching their responses.
 - Enhanced **sales by 23%** by revamping the UI/UX of pages based on the user behavior & analytics from Mix panel & google analytics.
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EDUCATION

Master of Science in Computer Science at *Stevens Institute of Technology, NJ*

PERSONAL PROJECTS

- **SWS:** An **HTTP/1.0** web server **written in C** based on **RFC1945** with features like serving static content, directory indexing, CGI execution, logging, daemon mode, debug mode and support for parallel request processing using sub-processes via `fork(2)`.
- **Extended SQL:** A query processing engine for Ad-Hoc OLAP queries. The query construct is based on an extended SQL syntax known as Multi-Feature & Extended MF queries. ESQL introduces a new operator called PHI to standard SQL to extend & simplify OLAP SQL queries in a succinct way built using **Python, PostgreSQL**.
- **Chrome Password Stealer:** A Python script that exploits the way Google Chrome stores passwords on Windows machines using win32 API and upload the credentials to my private Dropbox cloud, this vulnerability has been reported to Google & has been fixed.
- **SISH:** A POSIX compliant simple shell **built using C**, with support for pipelining commands (e.g. `ls | more`), input output redirections (e.g. `ls > file`), background commands (`&`), shell built-ins (`cd`, `echo` etc.), which could be used as a login shell built using `execve(2)`.