Vishaal Shah-Chittur

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Experience

Lead Backend Developer - Muse Los Angeles, California | Nov 2020 - Present

> Principal software implementation of main SaaS product to drive seed investment as a part of Y Combinator S21 batch
> Feature development for large digital brand campaigns and custom builds enlisted by clients such as Nike, AWGE, and Amazon Studios
> Made primary open source contributions SpacesVR, a cross-platform WebVR framework including P2P multiplayer and live chat systems

Backend Engineering Intern – Verkada San Mateo, California | Sep-Dec 2019, May-Aug 2020

> Redesigned event notifications by implementing Jinja2 templates in Flask for dynamic content creation and 20% daily error rate decrease
> Worked on new WebSocket/HLS video streaming architecture to help reduce .m3u8 load time by 80% and feed latency to <2s behind live
> Developed new Go packages for OAuth, KMS-based cross-server audit-logs, handling segment data, and interfacing with camera firmware
> Set up pytest unit test suites for 60% code coverage increase, wrote integration tests and Docker build scripts for new services deploys

Full Stack Developer – Localcoin Toronto, Ontario | Jan-Apr 2019

> Designed front-end for Retail Platform exchange and admin dashboard, developed Postgres data models and API's with JDBC
> Managed different project components (CircleCI, Nexus, Flyway) through multiple design cycles using Agile methods and tools
> Built internal livenet block explorer on Linux via Bitcore, node, ZeroMQ to resolve ~33% of all incoming support requests
> Created new website extensions for BeaverBuilder and Instapage use resulting in 15% Google Analytics engagement improvement

Software Engineering Intern – All Blue Solutions Inc. Dallas, Texas | May-Aug 2018

> Core API for ngDesk, building Java microservices with MongoDB and Redis to support Spring Boot app running Apache Kafka
> Integrated new pub/sub model (MQTT to STOMP.js) into main messaging interface with AWS to create new notification system
> Constructed jsoup and db2jcc4 web scraper to aggregate and process large volumes of EMR data for external client projects
> Wrote different Java programs to automate parsing of IBM sales data for migration into internal SugarCRM (MariaDB)

Application Developer – Kenna Mississauga, Ontario | Sep 2016-Dec 2017

> Full stack development with MS SQL Server and IBM Lotus Notes, created diverse toolsets for multiple ongoing client projects
> Enabled 50% app start time reduction by transposing relational table structures, built in-house PDF generation system for licensing
> Updated primary network file transfer procedure to SFTP using Java modules written with JSCh API

Skills

Languages & Frameworks

Python (Flask, Django), Ruby (Jets, Rails), Go (Gorilla), Java (Spring Boot), C++, VBA, Swift, HTML, CSS (Material, Sass), JavaScript (node, Angular 6, jQuery), TypeScript (React), LotusScript, XSP/XML, PHP, Bash, Arduino, MATLAB

Databases & Servers

SQL (Postgres, MS, MySQL, MariaDB), NoSQL (MongoDB, Firestore, Redis), IBM DB2, Domino, Notes, Apache Tomcat, Jetty, WebSphere Liberty

Technologies

Git, AWS (S3, EC2, Lambda, DynamoDB), Docker, Kubernetes, ElasticSearch, CircleCI, JIRA, Sentry, Logz, NewRelic, Jenkins

Creative

SolidWorks, Logic Pro X, Sketch, Adobe Photoshop, Flash, MS Office Suite, XCode, Sublime, Eclipse, PyCharm, Postman

Other

Social skills, leadership, quick learning, prototyping, user-centric design, adaptability

Projects

Xylosynth

Instrument synthesizer built through iterative design loops, feedback, user testing for Stage 2 RA patients

Rock Paper Scissors EMG

Analog circuit to read electrode signals, implementing op. amplifiers, filters, wave rectifiers, peak detector

Kōan – Hack The North 2016

Python panic attack prevention app built on Muse SDK with Firebase, Ruby on Rails, node.js, Twilio

Dicejack

Digital blackjack simulation using Arduino UNO game programming and hardware configuration

Dream Team Pong

Two-player ping pong game in Python with QtGUI

Education

University of Waterloo

BASc in Honours Systems Design Engineering, 2021

Awards: President's Scholarship, Motorola Engineering Scholarship

Relevant courses: Advanced Engineering Math, Physics, Linear Algebra, Data Structures & Algorithms, Control Systems, Optimization & Numerical Methods, Cognitive Ergonomics, Machine Intelligence, Computational Social Science