Vishaal Shah-Chittur

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Experience

Lead Backend Developer - Muse Los Angeles, California | Nov 2020 - Present
> Principal software architecture of core API with Ruby on Rails, driving seed investment for SaaS product as part of Y Combinator S21
> Configured P2P (WebRTC) networks to host multiplayer features on various 3D environments, deployed and scaled through AWS EB
> Development of large digital brand campaigns and custom website builds, enlisted by clients such as Nike, AWGE, and Amazon Studios

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
> Java microservice development for ngDesk API on MongoDB and Redis, supporting Spring Boot application running Apache Kafka
> Integrated new pub/sub model (MQTT to STOMP.js) into main messaging interface to create new notification system with AWS SNS
> 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
EQ/sociability, leadership, quick learning, prototyping, user-centric design, adaptability

Projects

Spaces VR ↵
Made primary open source contributions to cross-platform Web VR framework built on React, Three.js

Xylosynth ↵
Built instrument synthesizer through iterative design loops, feedback, user testing for Stage 2 RA patients

Rock Paper Scissors EMG ↵
Designed analog circuit to read electrode signals by implementing amplifiers, filters, rectifiers, detectors

Kōan – Hack The North 2016 ↵
Created panic attack prevention app built on Muse SDK with Firebase, Ruby on Rails, node.js, Twilio

Dicejack ↵
Simulated digital blackjack game using an Arduino UNO analog circuit and game programming

Education

University of Waterloo
BASc '21, Honours Systems Design Engineering
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