


Vishaal Shah-Chittur

Systems Design Engineering

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Experience

Backend Engineer, Verkada San Mateo, California – 2019

- > Created services for new Websocket/ HLS streaming architecture to reduce .m3u8 load time and latency, wrote shared Go modules for OAuth and KMS-based cross-server audit logging
- > Improved video archiving infrastructure to develop multi-video history player and generate stitched .mp4 view through FFMPEG filters and AWS processing (Boto3, Lambda, S3)
- > Built services for core product to handle segment data and interface with camera firmware
- > Wrote unit and integration tests to maintain coverage and scale application, Docker build scripts for new packages and deployment configurations

Software Developer, Localcoin North York, Ontario – 2019

- > Designed stack and UX for new digital currency exchange with Angular 6, Materialize, SCSS
- > Built livenet block explorer on Linux using Bitcore, node, ZeroMQ to resolve 1/4 of incoming customer support tickets
- > Developed PostgreSQL data models for Retail Platform and Admin dashboard applications
- > Helped set up Agile deployment pipeline (CircleCI, Nexus, Flyway) for project management
- > Wrote website extensions for BeaverBuilder, InstaPage to improve Google Analytics engagement metrics by 20%

Software Engineering Intern, All Blue Solutions Inc Dallas, Texas – 2018

- > Core back-end API and product development for ngDesk
- > Developed diverse microservices with Java, MongoDB, Redis to support Spring Boot application running Apache Kafka
- > Created web scraper system with jsoup and db2jcc4 to aggregate large volumes of client Electronic Medical Record data
- > Built main messaging interface with push notifications (AWS) through publish/subscribe model (MQTT, STOMP.js)
- > Wrote all Java scripts to automate parsing of IBM external sales CSV's into internal SugarCRM (MariaDB)

Application Developer, Kenna Mississauga, Ontario – 2016, 17

- > Full stack development with MS SQL Server and IBM Lotus Notes, utilizing Domino Designer framework
- > Built new backend PDF generation system for licenses and warranties
- > Changed project base data models to streamline app load time by 80%
- > Created and updated various functionalities for tools, programmed dynamic interfaces for various client projects
- > Optimized primary SFTP network using Java (JSch API)

IT Analyst, Toronto-Dominion Bank Toronto, Ontario – 2016

- > Parsed retail and email data with VBA to tabulate and analyze constant Monthly Operational Report metrics for Enterprise Capacity Management
- > Wrote Python scripts with Splunk API to research cloud data on 5000+ VM's
- > Automated scheduled spreadsheet analytics to reduce processing time by 75% and, reworked macros for faster solutions
- > Designed different data visualization formats for proposal and information decks

Skills

Languages & Frameworks

Python (Flask, Django), Go, Java (Spring Boot, Maven), C++, VBA, HTML, CSS, JavaScript (React, Angular 6, node, jQuery), LotusScript, XSP/XML, PHP, Bash (cron), Arduino, MATLAB

Databases & Servers

DynamoDB, Redis, SQL (Postgres, MS, MySQL), MongoDB, DB2, Notes, Apache Tomcat, WebSphere Liberty, Domino

Technologies

Git, Docker, AWS, ElasticSearch
CircleCI, JIRA, Sentry, Loggly, NewRelic, Jenkins

Creation

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

Projects

Rock Paper Scissors EMG

Built analog circuit to read electrode signals, implementing amplifiers, filters, wave rectifiers, and a peak detector

Dicejack

Created Blackjack simulation through various hardware configurations and programming with Arduino UNO

Kōan – Hack The North 2016

Panic attack prevention app built with MUSE Headband SDK, Python, Firebase, Ruby on Rails, node.js, Twilio API

Dream Team Pong

Developed ping pong game using Python and QtGUI interface

Education

University of Waterloo

2021 BAsC Candidate

Honours Systems Design Engineering

Awards: President's Scholarship, Motorola Engineering Scholarship

Relevant courses: Digital Computation, Human Factors in Design, Data Structures and Algorithms, Signals and Control Systems