

ANJALI RAMCHANDANI

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Summary

Software Engineer with 4+ yrs. of experience in C/C++, Go. Diverse skills in system software and backend development. Proven abilities in software integration, research, software architecture design and code optimization. Follows Agile Methodology for project delivery. Resourceful, creative, team oriented and passionate to engage in different technologies.

Technical Skills

LANGUAGES & PROTOCOLS: C, C++, JavaScript, Go, Java, LIBRARIES / FRAMEWORKS: Express.js, Hadoop, Kafka, REST. Python, GraphQL, HTML/CSS, SQL, TCP/IP, Websockets. TOOLS AND PLATFORMS: Git, AWS, POSIX threads, Bash.

Relevant Experience

PRODUCT DEVELOPMENT INTERN ZTech | Austin, TX, United States (June 2020 – Aug 2020)

- *ZTech Chat*: Built efficient **microservices** based backend with **Node.js**, **AWS lambda** and **PostgreSQL** based database.
- Consolidated feature requirements and transformed business-logic to **system design**, enabling clear task delegation.
- **Led engineering** team in development of a chat solution, customer database, onboarding pages (Wordpress).

SOFTWARE ENGINEER Intrepid Control Systems | Pune, MH, India (July 2017 – June 2019)

- *neoOBD2SDK* (github.com/intrepidcs/neoobd2_sdk): Designed and launched an **open source C SDK** for an industrial IoT app.
- Accomplished 80% faster launch by introducing the **global team** to developer tools (Git and Markdown) and TDD.
- Utilized FreeRTOS and its tasks based **multi-threading** to implement MQTT applications.
- Independently developed end-to-end application demos with **AWS IoT, Lambda**, Alexa and neoobd2 SDK.

SOFTWARE ENGINEER Alba Consulting | Pune, MH, India (Oct 2016 – July 2017)

- *Project Bioscope (IP-CCTV surveillance)*: Created a server-side application with **REST API** over websockets for camera app in **Go**.
- Succeeded in building the app in newly explored language (Go) as a component of distributed, scalable Kafka based application.
- Leveraged gRPC and protocol buffers for IPC. Resolved stream conversions from RTP to HLS with **C++11**, **FFMPEG**, **Bash** scripts.
- *Alba Lock*: Developed and optimized 30% of legacy code to align with **object-oriented principles** in low-level language, i.e. **C**.
- Supervised a team of two for the design and implementation of SCP based protocol with AES encryption.

EMBEDDED SOFTWARE DEVELOPER Palette Tech | Pune, MH, India (Sep 2015–Sep 2016)

- *Home Automation System*: Independently built firmware for Zigbee devices by **reverse-engineering** TI ZStack.
- Developed custom communication logic between Linux gateway and Android app using **TCP/IP socket programming**.
- Debugged and resolved problems in CPU utilization using Bash scripts.
- Reduced 40% time lags due to round trip times by implementing message passing between different Zigbee profiles.

Relevant Projects:

DATABASE MANAGEMENT SYSTEMS COURSE @UC Riverside (July 2020 – Aug 2020)

- *ShopDB*: Generated ER diagram and Relational schema for complex DBs and refined with optimizations using domains and **regex**.
- Implemented SQL queries for **PostgreSQL DB in Java** with error-handling and eliminated errors in PKs with PostgreSQL API.

DEEP LEARNING COURSE @UC Riverside (Mar 2020 – June 2020)

- *Traffic Signal Control Using Reinforcement Learning Agents*: Implemented and compared two different methods of RL, i.e. Deep Q learning and A2C. Used **Tensorflow API in Python** to train features based on queue length and waiting time.
- Improved time-to-develop with tools like SUMO, TraCI. Designed a webpage to demonstrate results with HTML/CSS, JavaScript.

BIG DATA MANAGEMENT COURSE @UC Riverside (Sep 2019 – Dec 2019)

- *HopScotch*: Researched application of Big Data in Travelling Salesman Problem by developing a maps-based app. Used **GraphQL API in Python** to query Yelp's dataset and Google OR tools for TSP solver.
- Utilized Google maps API to calculate distances between locations, and to generate markers on webpage with JavaScript, HTML.

Education:

MS, COMPUTER SCIENCE (DECEMBER 2020): University of California - Riverside

Courses: Real time Embedded Systems, Big Data Management, Distributed Systems, Artificial Intelligence, Design and Analysis of

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Algorithms, Introduction to Deep Learning, Advanced Operating Systems, Database management Systems, Approximation Algorithms.
BE, ELECTRONICS AND TELECOMMUNICATION (MAY 2015): D.Y. Patil College of Engineering., University of Pune
