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Work Experience

Software Engineering - [Quicko](#)

June 2023 - December 2023

Ahmedabad, Gujarat

7 months

Quicko is a tax platform for individuals and businesses, offering D2C, B2B, integration, and service models to simplify taxes for everyone at scale.

Worked across multiple products.

- **MEET by Quicko:**

- Provides platform to customers and CAs to **assist** and **manage** their **filings**.

- Worked as **sole developer** for v1.1 during the 2023 tax filing season and maintained it forward.

- Developed features around **bookings, orders** and **plans** management.

- Conducted **2,000+** meets for individuals tax filing in July month with **<40 tax experts** across India.

- Tech Stack: Flutter, NodeJS, AWS

- **Tax P&L APIs by Sandbox:**

- Sandbox is the API Platform for the Indian Fin-Tech space. **Tax P&Ls** are the core of Investment and Capital Gains import workflows, providing **FIFO settlements** for trades and their **tax implications** across Quicko.

- Developed **multi-threaded**, resilient and **asynchronous** APIs to have error prone workflows.

- Worked on Domestic Securities P&L and Tax calculations across more than **5 asset types** and pitched them to multiple platforms with **>60%** conversion rate.

- Focused on fundamental calculations problems like rounding errors and tax implication problems.

- Provided calculation engines for integrations with **13+ brokers**, **SDK** based, **report** based and **B2B** integrations.

- Tech Stack: Java - Spring Boot, Typescript, DynamoDB, AWS

- **Misc:**

- Discussed product building for MEET v2, Quicko's IT product, and Tax P&L reports, enabling a gig economy for assisted filing, investment insights, and simplified tax filing and analysis.

- Advocated for development and coding practices that streamlined the organization's operations.

- Helped in adopting and creating POCs for multiple technologies like **Terraform**, **Go**, as better alternatives.

Software Engineering (Intern) - [Stockal](#)

January 2022 - July 2022

Stockal is a US based trading provider and platform providing US investments in India, UAE, and other regions. Based on a multi-tenant model, it is working top investments platforms such as HDFC, Motilal Oswal and others as clients.

- Primary developer on the **P&L calculation** project and was a key member till the term.

- Done work around transaction data and further calculations and providing the same to service partners and clients, reducing manual work of OPs team to 0% and introduce third party integration

- Worked on stock **prices** to provide ticker price data for multiple features and calculations and candlestick **charts for technical analysis** using [TradingView advance charting library](#)

- Worked on data migration, price streaming and understood and modified various aspects of the multi-tenant model

- Worked on **Authentication, Logging** and other **middlewares** to reduce rewriting of code across multiple projects
- **Technologies Used:** *DB* → TimescaleDB, AWS RDS, MongoDB, Redis | *Backend* → NodeJS, Python, Golang | *Others* → AWS, Pandas

Technical Skills

Languages	JavaScript, GoLang, Java, Python, C++, C, CUDA Programming, VHDL
Databases	Postgres, Mongo DB, Redis, TimescaleDB
Frameworks	Next JS, Express JS, Material UI, Vivado HLS, Spring Boot
Systems	Linux, AWS, Digital Ocean, Heroku
Tools	Postman, Terraform, Listmonk

Projects

TNP Portal

Project | Gitlab

- Common portal for students and companies to manage placements in the institute
- **Rate limiting** (Authentication token based - fallback to IP) backed by **Redis**
- **Horizontally Scalable** application.
- Automatic expiry of incomplete user profiles using **Redis Pub/Sub**
- **Tech Stack:** Front-end → NextJS, MaterialUI | DB → Postgres, Redis | Backend → NodeJS, Firebase Storage | Others → Redis Pub/Sub, Helmet.js

status-cron

Github

- A **multi-threaded cron** service to keep track of health of your services.
- Supports multiple service types (HTTP, Redis, SQL [Postgres, MySQL, Oracle], MongoDB)
- Helpful for tracking multiple services in a minimal form with flexibility to use the data acquired as wanted.
- **Tech Stack:** Golang

Contrast Stretching Improvements

Github

- Implemented multiple methods to improve performance of Contrast Stretching Operation
- Compared CPU, and multiple GPU implementations with different approaches and shared memory usage to find a better way.
- **Tech Stack:** CUDA, C++

Work Stealing Dequeues, Pull based work balancing **Sup.: Dr. Sathya Peri, Professor, CSE-IITH** **Github**

- Understand and Implement a work stealing dequeue to balance work among idle and loaded threads
- Implementation of the model in a multi-core environment
- Explore possible improvements and implementation in a distributed environment (balance multi-region load, etc.)
- **Tech Stack:** C++

Education

Bachelor of Technology - Computer Science and Engineering,

July 2019 — June 2023

Indian Institute of Information Technology, Raichur

CGPA (Current): 8.58/10.00

Courses

Institute Courses

• Data Structures • Algorithm Design and Analysis • Operating Systems • Software Engineering • Database Management Systems • Computer Architecture • Parallel and Concurrent Programming • Computational Methods • Advanced Algorithms • Digital Image Processing • Scalable Algorithms for Data Science

Online Courses and Certifications

- Google Cloud Platform Fundamentals: Core Infrastructure
- The Bits and Bytes of Computer Networking by Google
- Deploy to Kubernetes
- Qwiklabs Quests (AWS and GCP technologies)

Volunteer Experience

Cloud Facilitator, Google Developer Student Club - IIIT Raichur Sept 2021 — Apr 2022

- Get to know about the Google Cloud Platform (GCP) and help people in community to get started with it.

Teaching Assistant, Indian Institute of Information Technology Raichur Sep 2020 — Feb 2023

- Introduction to Programming (under Dr. Rakesh Venkat, IITH)
- Operating Systems - 1 (under Dr. Sathya Peri, IITH)
- POPL (under Dr. Sadhana Jha, IIITR)
- Design and Analysis of Algorithms (under Dr. Ramesh Jallu, IIITR)
- Introduction to Programming (under Dr. Ramesh Jallu, IIITR)

Placement Cell Coordinator, Indian Institute of Information Technology Raichur Apr 2021 — Nov 2021

Cultural Secretary, Indian Institute of Information Technology Raichur July 2020 — Aug 2021

Electronics Club Coordinator, Indian Institute of Information Technology Raichur August 2019 — July 2020