

Tamim Muhammed Mushtak

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EXPERIENCE

Associate Software Engineer - II

July 2024 – Present

Docxster

Bengaluru

- **Architected a dynamic workflow builder system** enabling users to create complex document processing pipelines through a modular, drag-and-drop interface, using intuitive and generalized **user facing modules**.
- **Engineered a sophisticated plugin architecture** allowing seamless integration of new workflow modules, implementing a **type-safe interface system** that ensures compatibility across user-created workflows.
- Developed an **event-driven execution engine in Golang** that handles **complex workflow branching, parallel processing**, and isolated state.
- Built a **universal integration framework** supporting **webhook/polling/pub-sub** based sync with external services (Google Drive, Gmail), enabling useful OAuth integrations for the end users applications within Docxster.
- **Contributed all-around** as per management needs; **backend, frontend**, technical demos, product management.

Founding Engineer

Feb 2023 – June 2024

Practistics

Remote

- **Architected an automated match analysis system** using Python, reducing data collection time from 20+ minutes to under 3 minutes through **sophisticated OCR and image processing algorithms**
- Built a **robust client-side data extraction engine** using OpenCV and EasyOCR, implementing **adaptive preprocessing techniques** that maintained accuracy across multiple game updates
- Developed a **Flask backend with real-time visualization capabilities**, serving dynamic statistical insights to **150+ active users processing matches daily**
- Engineered a **modular pub/sub architecture** integrating with Overwolf SDK for **real-time game data collection**, implementing efficient data transformation pipelines
- Created a **secure launcher application with auto-update capabilities**, implementing **code protection mechanisms** while maintaining seamless user experience

PROJECTS

Indian Poverty Data Dashboard | *Python, Flask, React, pandas, PostgreSQL*

April, 2023

- * Engineered **complex data extraction pipelines** using pdfplumber and pandas to transform a **400-page unstructured government poverty report** into structured tabular data, handling intricate table layouts and multi-page data continuations
- * Built a **sophisticated data reconciliation system** that matched 2024 district data with 2011 census records, handling challenges like district splits, mergers, and name changes across **600+ districts using fuzzy matching algorithms**
- * Developed **robust data cleaning workflows** to handle inconsistent formatting, missing values, and statistical anomalies across **multiple government data sources** while maintaining data integrity
- * Created an **interactive analytics dashboard** using Plotly and Dash that visualizes **multi-dimensional poverty metrics** across Indian districts, making complex socioeconomic data accessible to policy researchers

EDUCATION

Sahyadri College of Engineering

Mangalore, India

Bachelor of Engineering in Computer Science (Data Science)

Nov 2020 – July 2024

TECHNICAL SKILLS

Languages: Python, Golang, JavaScript/TypeScript, Java, C

Frameworks: FastAPI, Flask, React, NextJS, Fastify

Cloud & Infrastructure: AWS (EC2, SQS, Texttract), PostgreSQL, MongoDB, Docker, Git, Supabase

Libraries: pandas, OpenCV, easyOCR, NumPy, Elasticsearch, Meilisearch, Fiber, TypeORM, Celery