Ritwik Puri

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EXPERIENCE

CitiXsys   Feb. 2024 – Present
Software Engineer   *Noida, India*
- Introduced Point Of Sale (POS) Authentication Mechanisms using QR, MSR and Biometric devices.
- Implemented POS Customer Display streaming using websockets (Socket.IO).
- Built an AI Bot Framework using OpenAI's Assistant API for building bots & functions, making it easy for users to interact with the system. Built a Custom Chatbot Interface using HTML, CSS & jQuery for the same.
- Leading cloud initiatives, including managing and making Frappe Cloud extensible.
- Conducted training sessions on the Frappe Framework for senior executives and technical leads.

Frappe   Sept. 2021 – Aug. 2023
Software Engineer   *Remote*
- Core (Backend) Maintainer/Developer of the Frappe Framework, owned and scaled Database & Email modules.
- Introduced integer primary keys using sequences for increasing write speed along with decreasing index sizes in the database.
- Introduced OAuth based authentication for email (IMAP, POP & SMTP) client in the framework.
- Proposed architectural changes like removing additional Redis instance(s), which helped in simplifying deployments.
- Led the development of Submission Queue, for queuing heavy workloads/actions in the background, while mentoring a junior engineer.
- Enhanced efficiency and throughput of background processes through multi-queue consumption during idle periods. Reduced (base) memory consumption of background workers by 25% by optimizing import paths.
- Made framework more maintainable by refactoring integrations and moving out independent modules into separate apps thus dropping unnecessary dependencies and reducing setup time.
- Acted as trainer for the Frappe Developer Certification, twice, training 50+ people whilst having a direct revenue impact(upwards of $25k).
- Reviewed more than 300 PRs, helping increase the test coverage of the framework from 50% to 68%.
- Worked with customer support team(s) to resolve bugs, handle feature requests and provide production support.

Tafzs   Mar. 2021 – Sept. 2021
Python Developer - Intern   *Remote*
- Collaborated with clients such as IHS Markit and Previsico.
- Maintained existing ETL processes, with integrations to Azure services such as CosmosDB, Blob & Table storage.
- Developed, Deployed and Managed ETL proof-of-concepts, end-to-end on services like Databricks and Azure Functions, integrating with Azure CI/CD Pipeline and Log analytics & Monitoring (Alert).

PROJECTS

Weakly Consistent Distributed File System *(C++, gRPC)*
- Developed a client-server model inspired by Andrew File System (AFS) with whole-file caching on the client-side and simple server-side locking.
- Implemented sync/async gRPC calls for efficient client-server communication. Managed file consistency through checksums, reader/writer locks, and synchronized client-server directories.

TECHNICAL SKILLS

Languages: Python, Golang(Go), SQL
Frameworks: Flask, Frappe
Tools: Git, Docker, MySQL/MariaDB, Redis, Shell Scripting, CI/CD

EDUCATION

Georgia Institute of Technology   Jan. 2024 – Present
Master of Science (MS), Computer Science   *Remote*

Bennett University   Jul. 2017 – Jun. 2021
Bachelor of Technology, Computer Science and Engineering   *Noida, India*