Ankush Menat

Software Engineer

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EXPERIENCE

Lead Software Engineer   Jan. 2021 – Present

Frappe   Remote

- Lead maintainer of Frappe Framework - a low code framework for building business apps like ERPNext.
- **35% memory usage reduction** by tweaking background workers and various code optimizations. (blog post)
- Around **60% reductions in request overheads** and major reductions in resource usage. (conference talk)
- Worked on solving several performance problems in Frappe and ERPNext.
- Wrote **automated SQL query optimizer** for developers to quickly find and optimize slow queries.
- **Reviewed 1500+ pull requests**, a significant majority of which are from open-source community.
- Improved test coverage from 50% to 70% with the team.
- Screening, interviewing, hiring and onboarding new engineers.
- Resolve 30+ critical security vulnerabilities and performed security audits on multiple company codebases.
- Refactored several core subsystems for improving maintainability and stability of the Framework.
- 100% of my work output at Frappe is open source and can be found on my GitHub profile.

Mechanical Engineer   Aug. 2016 – Jan. 2021

Godrej Precision Engineering   Mumbai, IN

- Estimating cost of multi-million dollar nuclear power and defense manufacturing projects.
- Pre-sales/pre-bid activities, negotiations and budgeting for projects.
- Automatic data extraction from 3D CAD data using VBA scripts.
- Statistical analysis on cost data for estimating costs.
- Training the team and new members on Advanced Excel uses.
- Overall improvements resulted in savings of thousands of man-hours every year.

Internships

Part of Mechanical Engineering Diploma

Total Tools   Dec. 2015 – May. 2016

- A mediocre internship that shaped my life. This is roughly where my programming journey began. (blog post)

ACG Worldwide   Jun. 2014 – Nov. 2014

- Prepared CAD models and manufacturing drawings for the ProTab tablet pressing machine using Solid Edge.

EDUCATION

Georgia Institute of Technology   Remote

MSc Computer Science, Computing Systems   2024 – 2026 exp.

University of London   Remote

BSc Computer Science, First Class Honours   2019 – 2022

Bhagubhai Polytechnic   Mumbai, IN

Polytechnic Diploma, Mechanical Engineering   2012 – 2016

EXPERTISE

Skills: Technical Leadership, Performance Optimization and Scalability, Debugging, Systems Programming, FOSS maintenance, Databases, Code Reviews, Automated Testing, SAST, Continuous Integration, Security, Technical Writing

Languages: Python, SQL, Rust, C, C++ (17), JavaScript

Technologies: MySQL, PostgreSQL, Redis, SocketIO, Sentry, Multi-tenant SaaS, Linux

Tools: Shell, Git, GitHub, NeoVim, Spreadsheets, tmux, i3, Docker, GDB, Make

SELECTED PUBLICATIONS

"The Soul of an Old Machine: Revisiting the von Neumann Architecture", Personal blog, Reached #1 on Hacker News.

"Reducing Memory Footprint of Frappe Framework", Frappe engineering blog.

"If You Wish to Truly Understand Frappe's Scheduler, You Must First Invent the Universe", Frappe engineering blog.

"Solving Concurrency Bugs Using Schedules and Imagination", Personal blog.