Ruturaj Tambe

Software Engineer|Performance Engineer
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Performance & Capacity Engineer with 5+ years' experience in capacity planning, performance optimization, and automation to scale infrastructure and improve cloud cost efficiency.

Education

New York University Courant School of Mathematics & Stern School of Business — **New York, USA**
Master of Science in Information Systems — May 2026
Database Systems, Data Communication Network, Algorithms, Cloud & ML, Big data & ML, Data Science & AI, Finance

MIT, Savitribai Phule Pune University
Bachelor of Engineering in Computer Science and Engineering — Aug 2015 - June 2019
Data Structures & Algorithms, Theory of Computation, Web Technology, Cloud Computing, High Performance Computing

Skills

Programming : Python, Groovy, Golang, MySQL | **Platforms:** Linux, Windows, macOS
Performance Engineering: JMeter, Locust, API Optimization, Query Profiling (Datadog, Splunk, Postgres, Redis, Kafka)
Frameworks & Libraries: Google Apps Script, NumPy, Pandas, Matplotlib, scikit-learn
Cloud & DevOps: Git,GCP, Microsoft Azure, AWS, Kubernetes, Docker, Terraform, YAML, Jenkins,
Core Competencies: Capacity Planning, Site Performance, Infrastructure Scaling, Cost Efficiency, Cross-functional Collaboration, Analytical Modeling, Automation, Problem Solving, Business Outcomes

Work Experience

Avaya Software Engineer, Performance & Capacity Engineering
R&D - CCAAS Analytics Team — Feb 2023 - May 2024

- Led site performance and capacity engineering for **22 microservices**, improving throughput by **375%** and validating performance against SLOs (p95/p99) under peak load.
- Developed automated load and capacity frameworks using **Golang, Python, and Locust**, simulating **100K+ chat** and **20K+ voice transactions/hour** to analyze scalability and utilization.
- Built scenario-based capacity planning models to optimize headroom and regional placement across **$5M+ annual lab infrastructure**, reducing cost by **$4.2K/month** via Azure Lab migration while maintaining reliability targets.
- Partnered with Finance and Infra teams on **TCO analyses**, achieving **$64.2K savings** through Datadog log optimization.
- Optimized Kubernetes resource allocation (**requests/limits, HPA/VPA tuning**), reducing OOM kills and throttling, and stabilizing CPU/memory across **35+ critical issues**.
- Resolved **70+ bottlenecks** (Postgres lag, Redis & Kafka imbalance), improving system resilience and fault tolerance.
- Built **Datadog & Splunk dashboards** to monitor capacity, performance, & cost trends, influencing infra decisions.

Zensoft Services Pvt. Ltd. - Performance Engineering Team Lead
POC and Performance — Jul 2019 - Feb 2023

- Led performance engineering & capacity optimization for **20+ enterprise PwC projects** , improved response times by **up to 500%** & scaled user concurrency by **10×** while ensuring service reliability under load & operational efficiency.
- Mentored and scaled the team from **5→23 engineers**, reducing onboarding time by **33%** and tripling delivery throughput.
- Implemented "shift-right" approach, reducing performance testing cycles by **25%** and saving one day per sprint
- Automated **Azure DevOps & BlazeMeter pipelines** reducing deployment time by **76%** & **98%** using YAML workflows
- Optimized client-side performance by reducing latency by **90%** through strategic caching and file size reduction
- Led **workload & capacity optimization** to enhance infrastructure utilization by **30%** & prevent scaling bottlenecks.

Awards: Annual Super Squad & Spot Appreciation Awards - for delivering high-impact performance across multiple projects.

New York University - Research Assistant — **New York, USA**
Stern School of Business | Wilf Family Department of Politics — Jan 2025 — Present

- **Political Economy of Corporate Fraud**: Used **NYU HPC** to distribute extraction/parsing for **88,516 tickers**; applied **LLM-based information extraction** on SEC filings to construct governance/financial features & building **statistical analysis** to flag fraud risk. Parallelized jobs & optimized compute utilization for higher throughput & cost/performance.
- **Scheduling Systems / Lekin**: Developed a **Python library** for the **LEKIN scheduling system** with **4 implemented algorithms**. Provides functions to process C++ LEKIN input/output files and a framework for adding **custom Python algorithms**. Currently building an integration for the **C++ legacy system** to run **user-defined Python algorithms**.

Projects

- **TradePartner (In Progress)**: B2B trade marketplace for import-export traders to verify identities, share data, and connect with trusted partners; features product/H.S. code search, real-time tariff data, and a cost-sorting engine.
- Projects are available on Portfolio and GitHub. Currently working on learning mathematical optimization techniques through NYU coursework and projects.