Maheep Kumar

Full-Stack Engineer • Crafting Scalable & Distributed Systems

GitHub: technusm1   **LinkedIn:** technusm1

📍**Location:** Pune, Maharashtra, India
✉ **E-mail:** me@maheepk.net
📞 **Phone:** +91 94175 76175, +91 79735 40746

Professional Summary

*Full-stack Engineer (8+ yrs) with deep experience building distributed systems in **Elixir, Go, Rust and Python**. Architected microservices powering 1B+ daily flight requests, designed ML pipelines cutting cloud costs by 85%, and deployed scalable infra on AWS and GCP. Focused on building reliable, low-latency systems with clean, maintainable APIs.*

Skills

- **Backend Development**: Elixir, Go, Rust, Python
- **Web Development**: React, Electron, Tauri, Phoenix, Django
- **Databases**: PostgreSQL (and Postgis, Citus, PgBouncer), SQLite, Redis
- **Cloud and Infra:** AWS, GCP, Docker, Kubernetes, Puppet, Terraform, GitHub Actions, Concourse, Jenkins
- **Miscellaneous**: Bash, Git, gRPC, GraphQL, Kafka, REST, Prometheus, OpenTelemetry, OAuth
- **Soft Skills**: Strong team collaboration, proactive problem-solving, results-oriented mindset

Experience

Tripstack / Etraveli Group – Pune, India
Senior Software Engineer • April 2024 – Present • Elixir, Go, Rust, Python, PostgreSQL and Neo4j

- Designed a caching solution for airline content, achieving **98% search-to-avail price accuracy and handling 1 billion flight requests daily at 3ms p99 latency**.
- Developed airline price-change prediction ML models using random forest classification and gradient boosting, **reducing unnecessary airline API search calls by up to 85% and cutting compute costs by $24,000/month by migrating from GCP to in-house data center**.
- Ensured reliable pricing and content freshness with automated pipelines, **improving average booking conversion by 5%**.

Tinymesh – Mohali, India
Software Developer • 2023 – 2024 • Elixir, Rust, PostgreSQL and SQLite

- Productionized Tinymesh's Advanced Metering Infrastructure (AMI) solution, **deployed at 100K+ households** for PSPCL.
- Developed RF-focused tooling in Rust for mesh network analysis and firmware flashing.
- Setup CI pipelines for firmware testing; streamlined developer onboarding and hiring for the India team.
- Designed MQTT-based service for wireless meter communication and OTA firmware upgrades.

ION Trading – Noida, India
Software Developer • 2017 – 2019 • Java, C++, Go

- Migrated the legacy **Wall Street Systems FX trading system** to a microservice architecture.
- Developed the **Execution Engine tool** for placing bulk orders on different Capital markets.

Personal Projects

- **IoT for Agriculture (2019-2023)** – Built LoRa-based sensors and irrigation systems for hydroponic farming, improving crop maintenance and reducing water usage by 80%. Improved agricultural yields for 100+ farmers by a minimum of 30%.
- **Healthcare Bots (2020-2021)** – Designed WhatsApp bot to assist rural COVID-19 patients with care resources.
- elixirbyexample.com – Learn Elixir programming through simple examples.
- ask-flow – An awesome Q&A website powered by GPT and StackExchange API.

Education

- **B.E. in Computer Engineering (2013-2017)** • CGPA: 8.35/10 • Thapar Institute of Engineering and Technology
  - **Coursework**: Data Structures and Algorithms, Developing Android Apps, Compiler Construction, Applied Statistics, Linear Algebra, Differential Equations, Robotics: Mechanical Design