

Michael Sayapin

m@sayap.in | +66 632267021 | Bangkok, Thailand | <https://www.linkedin.com/in/michael-sayapin/>

Senior Software Engineer with 18 years of experience in backend, IoT, scaling complex distributed systems, and bare metal Linux performance. Built products from the ground up, managed remote teams. Wide breadth of expertise covering Python, Kubernetes, AI/ML, IoT, DevOps, Data Science.

WORK EXPERIENCE

iDRC, commercial energy saving IoT | Tech Lead | Python/C/ESP32 2019–now

- designed and scaled backend for controlling HVAC in real time with **>2 billion requests/m**
- **reduced cloud costs by over 90%** by using own bare metal servers with Kubernetes
- designed a highly available configuration with **>99.99% uptime**
- mentored a diverse remote team, provided training and code reviews, organized an internal “reading club”

Posit, indoor positioning and analytics IoT | Backend & Hardware Lead | Python/C/ESP32 2017

- designed a new approach for indoor positioning using BLE embedded into key cards
- **reduced indoor positioning costs by >80%** with sub-meter accuracy
- implemented full stack of hardware, firmware, and backend

Smartmeal, nutrition science platform | Founder, Tech Lead | Python 2015–2019

- developed a new type of meal recommendation system based on 60+ data points
- reduced complex meal recommendation latency **from 3-5s to <0.1s** using Genetic Programming and ML
- designed a new process for entry by staff using voice and fuzzy logic **reducing time to enter a recipe by >90%**

Tao Trading, cross-border eCommerce | Tech Lead | Python/Django 2009–2015

- built an automated warehouse and developed SOPs to **handle >2000 orders/day with <6 staff** per shift
- designed and implemented fast and accurate **search >700 million SKUs** with near real-time update, including “search by color” and image similarity search that nobody had at the time

SKILLS

Software: Python (Django, Flask, FastAPI, Numpy, Pandas), Kubernetes, Docker, DBA (Postgres, MySQL, Mongo), search (Elastic, Lucene), message queues (RabbitMQ, Kafka), Redis, JavaScript/TS (Vue, Svelte), HTML/CSS

Infrastructure: Linux, AWS, infrastructure-as-code (Terraform, Ansible, Helm), ELK stack, OpenTelemetry, Grafana stack (Tempo/Loki), cybersecurity (IPS/IDS, cryptography, firewalls), networking (TCP/IP, DNS, Mikrotik, OpenWRT)

Concepts: CI/CD (self-hosted and cloud), unit testing, TDD, software architecture, horizontal and vertical scalability, distributed data, CAP theorem, event-driven systems, microservices, time series analytics, statistics, AI/ML, Git

Soft skills: Scrum, Kanban, Agile, project management, product-market fit, technical writing, documentation

EDUCATION

BSc in Computer Science

GPA: 3.72 / 4.00 (equivalent)

- ACM-ICPC University Team lead