

NGUYEN TRAN TIEN DAT (Dat Nguyen)

Backend Engineer | Erlang/OTP Expert | Distributed Systems | IoT/Telecom | Cloud Infra

📍 Ho Chi Minh City, Vietnam (UTC+7)

🌐 <https://datnguyen-tt.github.io> ✉️ datttn.work@gmail.com 💼 [linkedin.com/in/datnguyen-t](https://www.linkedin.com/in/datnguyen-t)



Summary

Creative and detail-oriented **Erlang/OTP** Expert Software Engineer with over **10 years** of experience in designing, building, and maintaining telecom and communication network systems. Proven expertise in Erlang/OTP, IMS subsystems, **network automation**, smart camera **cloud platforms**, and multi-channel **messaging services**. Passionate about building **stable, scalable**, and maintainable systems with a strong focus on documentation and best practices. Adept in **AWS, Cloud architecture, Diameter protocols**, and **functional programming**.



Technical Skills

- **Erlang/OTP, Python, C/C++, Bash, YANG, YAML, JavaScript, CSS, HTTP**
- **SIP, Diameter, FreeSWITCH, NETCONF, RESTCONF, OpenSSL, Certbot**
- **AWS** (EC2, S3, Lambda), **Docker**, Docker Swarm, Cisco NSO, IMS, Ansible
- **Mnesia, PostgreSQL, D/ETS, SQL, Cisco DB**
- **Common Test, EUnit, Dialyzer, Lux, Wireshark, DBG**
- **GitLab CI/CD pipelines, Prometheus, Grafana, Jenkins**
- **Functional programming, Cloud architecture**, Telecom protocols, Network automation
- **IVR, SMS, USSD, WhatsApp APIs, Telegram APIs, RevenueCat APIs**
- **Emacs (Spacemacs)**, Emacs Lisp, EDTs, Vim, DBeaver, PgAdmin
- **Agile, Scrum, Kanban**, Jira, Trello, MHWEB, Mirco, Asana



Experience

5GenCare

Jun 2023 – Present

Remote Experienced Software Engineer | HongKong, China

- Provides ready-to-use, scalable, open source platform for IoT and AIoT.
- Build and maintain a stable scalability cloud-based platform, deploy and manage applications.
- **Stack:** Erlang/OTP, Docker, Prometheus, Grafana, Openssl, Mnesia, Postgres, Python, Bashscript, Gitlab

Precision Development (PxD)

Jun 2022 – Jun 2023

Remote Software Engineer | Newton, America

- Developed digital services to support smallholder farmers in low-income countries.
- Researched and implemented new cloud technologies and features based on customer needs.
- Extracted and processed data for research and analytics.
- **Stack:** AWS, Erlang Cowboy, Docker, Prometheus, Grafana, FreeSWITCH, Mnesia, Postgres, Flask, Jinja, IVR, USSD, SMS

DEK Technologies Vietnam

Jan 2020 – Jun 2022

Cisco Consultant / Remote Engineer | Ho Chi Minh, Vietnam

- Joined the Tailf core team responsible for implementing recursive solutions to optimize tail call performance in YANG models.
- Resolved critical bugs in Cisco's NSO and ConfD platforms.
- Wrote support tools and conducted performance testing.
- **Stack:** Erlang, Python, YANG, NETCONF, RESTCONF, Jenkins, Bash, Emacs Lisp

DEK Technologies Sweden

Oct 2019 – Dec 2019

Cisco Consultant / Onsite Engineer | Stockholm, Sweden

- Embedded with Cisco's team in Stockholm to strengthen integration.
- Facilitated cultural exchange and internal knowledge sharing.
- **Stack:** Erlang, YANG, Python, NETCONF, RESTCONF, Jenkins, Bash, Emacs Lisp, EDTs, Wireshark, Git, Jira

DEK Technologies Vietnam

Nov 2016 – Nov 2019

Developer / Ericsson Consultant | Ho Chi Minh, Vietnam

- Delivered new features and CI improvements for IMS SBG products.
- Improved media control functionality and CI tooling.
- **Stack:** Erlang, Python, SIP, Diameter, Megaco, Jenkins, Wireshark, Git & Gerrit

Education

M.Sc. in Information Technology

Nov 2018 - Jan 2022

University of Information Technology | Ho Chi Minh, Vietnam

- **LoRaWAN Reply (Master's Thesis Project)**
 - Built a LoRaWAN relay gateway to reduce installation complexity and improve coverage. Integrated Semtech LR1110 for multi-standard indoor/outdoor geolocation. Supported GNSS, WiFi Passive scanning, and LoRa communication. Duties: Protocol design, research, development, packaging, presentation.
- **Research Paper: Integrated Multi-standard System based on LR1110 for Geolocation Applications** — *Co-author, University of Information Technology | 2021*
 - Published **IEEE** paper presenting a geolocation system using **Semtech LR1110**. Highlighted hybrid use of GNSS, WiFi scanning, and LoRa for enhanced location accuracy. Involved in architecture design and experimentation during postgraduate study.

B.Sc. in Computer Engineering

Jan 2012 - Jun 2016

University of Information Technology | Ho Chi Minh, Vietnam

- **CV Parser Tool - Internship** **Mar 2016 – Jun 2016**
Internship at Global Cyber Soft Vietnam | Ho Chi Minh, Vietnam
 - Built a tool to extract candidate data from CVs using C++ and Regex.
- **Local Weather Forecast System (Thesis)** **Dec 2012 – Jan 2016**
 - Developed LoRa-based solar sensor system with fuzzy logic for weather prediction.
 - **Stack & Skills:** C/C++, Fuzzy Logic, RTOS, STM32 (ARM Cortex-M4), LoRaWAN, PID Controller, Solar Power Systems, Scientific Research, Presentation