

## Nguyen Tran Tien Dat (Dat Nguyen)

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### 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 Test, 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** — *Remote Experienced Software Engineer* | Jun 2023 – Present

- 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)** — *Remote Software Engineer* | Jun 2022 – Jun 2023

- 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** — *Cisco Consultant / Remote Engineer* | Jan 2020 – Jun 2022

- 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** — *Cisco Consultant / Onsite Engineer* | Oct 2019 – Dec 2019

- 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** — *Ericsson Consultant* | Nov 2016 – Nov 2019

- 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**

University of Information Technology — *May 2022*

- **LoRaWAN Reply (Thesis)** — *University of Information Technology (Postgraduate)* | Jun 2020 – Jun 2021
  - 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 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**

University of Information Technology — *Jan 2016*

- **CV Parser Tool** — *Internship at Global Cyber Soft Vietnam* | Mar 2016 – Jun 2016
  - Built a tool to extract candidate data from CVs using C++ and Regex.
- **Local Weather Forecast System** — *Undergraduate Graduation Project* | Dec 2012 – Jan 2016

- Developed LoRa-based solar sensor system with fuzzy logic for weather prediction.