

Jakub Duniak

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Software engineer with 13+ years in telecom (C/C++, Python, Erlang), multiple LTE/NR Product Guardian roles, experienced in creating various projects and fullstack tools for supporting feature development. Tech lead on features, Scrum Master, extensive experience in technical training for developers. Strong interest in good UX, DX, system design and optimised, scalable software, including AI solutions and microcontrollers.

TECHNICAL SKILLS

Python, C (EMCA), Erlang/OTP, Machine Learning, AI, FastAPI, Git, Linux, Docker, Kubernetes, GitLab CI/CD, Gerrit, Jenkins, PostgreSQL, Grafana/Prometheus/Loki, 3GPP (LTE/NR)

PROFESSIONAL EXPERIENCE

Ericsson - Łódź, Poland Aug 2012 – Present

AI-Powered Code Review System 2026–Present

- Contributing to an automated C code review system for 5G UPC UL/DL scheduler code
- Multi-agent architecture with parallel reviewers running against domain-specific rule knowledge bases

CCMS Application - Backend Developer & DevOps 2025

- Built complete backend (Python/FastAPI) for a compatibility matrix tool serving ~1,500 users across Ericsson
- Microservice architecture: API gateway with Microsoft SSO/EntraID, PostgreSQL with role-based approval workflow, upgrade-path calculation using Dijkstra's algorithm
- Created CI/CD pipelines in GitLab - automated testing, Docker builds, Kubernetes deployment, DB backup pipelines
- Deployed Grafana/Loki/Prometheus monitoring stack for logs, audit trail, and usage statistics

5G NR eDRX Feature - Frontrunner 2024–2025

- Led design and baseband implementation of NR Idle Mode eDRX (SP12980)
- Implemented core baseband impact for SP1; supervised team delivery and ensured code quality for SP2
- Built Python tooling for eDRX development, later extended to a web app adopted by multiple teams

L2 Baseband Developer - Product Guardian 2017–2024

- Product Guardian: solution design, code reviews, FST analysis, TR troubleshooting, customer escalation support, cross-team coordination
- Implemented and supported multiple 3GPP features: LTE eDRX, NB-IoT paging, CAT-m paging, ROHC, admission control, rate control scheduling
- Owned EBT framework as PG - maintained test infrastructure, built launcher GUI that drastically reduced test setup time, profiling/CI dashboard
- Created and conducted technical trainings including multi-day Erlang workshops for new developers

Ericsson Garage - Connected Vehicle Project 2020

- Designed remote control software for 4G/5G connected vehicle demo - menu system, UI, calibration, real-time diagnostics, input filtering

LTE Layer 3 Developer & Scrum Master 2012–2017

- Software developer on LTE L3 protocol stack (C++ RSA-RTE); served as Scrum Master facilitating agile processes

EDUCATION

Politechnika Łódzka - MSc Engineering, Computer Science | 2006–2012

Copenhagen University College of Engineering - Exchange, Computer Science | 2011

CERTIFICATIONS

Machine Learning Semester - AGH University of Kraków (2026) · Applied & Advanced Erlang (Erlang Solutions) · OSE Troubleshooting (ENEA) · Professional Scrum Master (scrum.org) ·