Damian Kuter

Senior Test Automation Engineer / SDET | Embedded & Python

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SUMMARY

Senior Test Automation Engineer and Software Development Engineer in Test (SDET) with 10+ years of experience in IT, specializing in Python, embedded systems, distributed software, and test infrastructure.

I design and develop test automation frameworks, reusable Python libraries, device simulators, hardware testing environments, and internal engineering tools. My background combines software development, test automation, Linux infrastructure, networking, and CI/CD.

I enjoy solving complex engineering problems, improving developer workflows, and automating repetitive processes.

Outside of work, I train Brazilian Jiu-Jitsu and develop my own business and software projects.

CORE EXPERTISE

- **Python Software Engineering**
- **Test Framework Development**
- **Embedded Systems Testing**
- **Test Infrastructure & Orchestration**
- **CI/CD & DevOps**
- **Communication Protocols**

TECHNICAL SKILLS

Software Engineering	Python, Bash, FastAPI, Pydantic, REST API, Git
Test Automation	pytest, Robot Framework, Test Framework Development, Unit Testing, Component Testing, Integration Testing, System & E2E Testing, Device Simulation, Hardware-in-the-Loop (HIL)
Embedded Systems & Networking	Embedded Linux, Yocto, CAN, ISO-TP, UDS, DoIP, EEBUS, DOCSIS, TCP/IP, JTAG, Raspberry Pi
Communication & Serialization	MQTT, RabbitMQ, ZeroMQ, Protocol Buffers, mDNS / Avahi
CI/CD	Jenkins, TeamCity, GitLab CI/CD, GitHub Actions
Infrastructure & DevOps	Linux, Docker, Kubernetes, Ansible, Proxmox, KVM, OpenStack, AWS IoT Greengrass, Nginx
Monitoring & Observability	Prometheus, Grafana
AI & Developer Productivity	AI-assisted Software Development, Agentic Coding Workflows, Claude Code, OpenAI Codex, MCP

EXPERIENCE

Senior Test Automation Engineer / SDET | Embedded & Python Sep 2020 – Present · 6 yrs 3 mos

Viessmann R&D Center, Wrocław

- Develop and maintain automated component, integration, and system-level tests for embedded software in a Home Energy Management System (HEMS), integrating EVs, charging stations, heat pumps, and solar inverters.
- Designed and developed a multi-service Python test framework enabling end-to-end testing of distributed embedded services and their interactions.
- Developed a shared Python testing library providing device simulators, communication utilities, protocol abstractions, and reusable data models across multiple test projects.
- Integrated a commercial EEBUS testing tool with the Python test framework, enabling hardware-independent testing through virtual device simulation.
- Designed and developed an internal web-based test orchestration platform for centralized CI test reporting, firmware distribution, and automated test execution on physical hardware using Raspberry Pi-based test nodes.
- Containerized test environments and implemented CI/CD workflows supporting parallel test execution, automated reporting, and code-quality checks.

Tech stack: Python, pytest, FastAPI, Bash, Linux, Docker, Jenkins, TeamCity, Ansible, Proxmox, CAN, UDS, DoIP, EEBUS, MQTT.

CI & Test Automation Engineer (Part-time)

Oct 2021 – Aug 2022 · 11 mos

xBerry

- Set up GitLab CI infrastructure and implemented multi-project pipelines with cross-repository triggers for automated Hardware-in-the-Loop (HIL) testing.
- Automated firmware flashing via JTAG and execution of Python test suites on physical embedded devices.
- Developed GitHub Actions CI/CD pipelines for multiple development teams working on food delivery robots.
- Developed automated tests in Python and implemented software deployment to embedded devices using AWS IoT Greengrass.

Tech stack: Python, GitLab CI/CD, GitHub Actions, AWS IoT Greengrass, JTAG, HIL.

Software QA Tester

Apr 2019 – Sep 2020 · 1 yr 6 mos

intive, Wrocław | Falcon V Systems project

- Contributed to Python software development and the definition of a test automation strategy covering unit, component, integration, and end-to-end testing.
- Developed automated protocol-level and network integration tests for DOCSIS-based broadband access systems using Python, Docker, and Kubernetes.
- Built and maintained CI pipelines using Jenkins and GitLab CI.
- Implemented infrastructure monitoring using Prometheus and Grafana.
- Collaborated with development teams within a Large-Scale Scrum (LeSS) environment.

Tech stack: Python, Bash, Linux, Docker, Kubernetes, Jenkins, GitLab CI, RabbitMQ, DOCSIS, Ansible, Prometheus, Grafana.

Verification Engineer

Jun 2017 – Mar 2019 · 1 yr 10 mos

Nokia, Wrocław

- Designed and executed system-level test scenarios, including manual and automated verification.
- Maintained test infrastructure consisting of more than 30 blade servers running RHEL and Ubuntu, including deployment and management of KVM virtual machines.
- Automated software installation, upgrade, and verification processes using Robot Framework, Python, Bash, and Ansible.
- Worked with virtualized and containerized test environments using OpenStack, Docker, and LXC.

Tech stack: Python, Bash, Robot Framework, Ansible, Linux, KVM, OpenStack, Docker, LXC.

L1 IT Cloud Specialist

Feb 2016 – May 2017 · 1 yr 4 mos

IBM

- Monitored server infrastructure, system availability, resource utilization, and service health.
- Performed server onboarding, incident troubleshooting, and disaster recovery testing.
- Administered Windows, Linux, and AIX environments, including Active Directory.

Tech stack: Windows, Linux, AIX, Active Directory.

EDUCATION

Wrocław University of Science and Technology
Bachelor of Engineering (BEng), Electrical and Electronics Engineering
Specialization: Applied Computer Engineering
2013–2018

CERTIFICATES

ISTQB Certified Tester Foundation Level, Polish Testing Board (SJSI), credential ID 08123/FLCT/2017
Sep 2017

PROJECTS

EgoTape · **egotape.pl**
A small e-commerce project born from training BJJ: my own brand of sports tape for grapplers. I design the products and packaging parametrically in OpenSCAD, 3D-print them and run the online store.

LANGUAGES

Polish: native
English: B2