



Michael Boiman

Full-Stack Dev & Quality Engineer – AI
Automation Expert

Kontakt

- ✉ mboiman@gmail.com
- ☎ Available on request via email
- 🌐 BKS-Lab
- in [michael-boiman](#)
- 🐙 [GitHub Profile](#)
- 🐦 [@mboiman](#)

Education

**Diploma in Computer Science
(UAS)**

ISTQB Certified Tester

Languages

German	Native
English	Professional
Russian	Conversational
Hebrew	Conversational

CAREER PROFILE

With more than 20 years of experience in software development, I focus on automating business and quality processes and integrating artificial intelligence. My professional strengths include:

- **AI Automation:** Optimising and implementing AI within existing business processes.
- **Python Expertise:** Extensive experience in developing AI-based solutions, automations, and data analysis using Python.
- **Business-Process Automation:** Increasing efficiency by automating manual workflows and data processing.
- **Development of an AI Mail Bot:** Automated email processing and data synchronisation with third-party systems.
- **Experience with LLMs:** GPT, Claude, Gemini, Llama, Mistral, RAGs, Agentic AI, MCP, A2A, among others.
- **Test Automation:** Setting up quality gates within the CI/CD pipeline.
- **Real-Time Monitoring:** Building systems that display quality status in real time.
- **ML and DL Models:** Integrating machine-learning and deep-learning models into business processes.
- **Performance Testing:** Conducting load and performance tests.
- **Development:** Expertise in Java, JavaScript, Swift, Python and other languages.
- **DevOps:** Experience with GitHub, GitLab, Jenkins and other CI/CD tools.
- **Contract Testing:** Using Pact.io or Spring Contract.
- **Cloud Technologies:** Proficient with Kubernetes, Helm, Terraform, ArgoCD, etc.
- **Mobile Development:** Solid experience building mobile apps with Swift and Flutter.
- **Agile Methods:** Practical application of Scrum and SAFe.
- **Team Leadership:** Managing and coordinating cross-functional teams.

SKILLS & PROFICIENCY

**Python
(Data
Analysis,
ML/AI,
Automation)**



**AI &
Machine
Learning**



**Software
Development,
Design,
Architecture**



**JIRA &
Confluence**



**IntelliJ &
VS Code**



Playwright



**Cucumber
/ Gauge /
Taiko**



**CDC –
Spring
Contract &
Pact.io**



**CI/CD
Workflows
– GitLab,
GitHub &
Jenkins**



**Kubernetes
– Helm,
Terraform
& ArgoCD**



**REST &
Postman**



**Load &
Performance
Testing
with
JMeter,
Gatling**



**AWS,
Google
Cloud &
Azure**



**Dashboards
& Analytics
– Kibana
(+ES) &
Graylog &
Grafana &
Instana**



**Mobile Dev
– Xcode,
Flutter &
Swift**





PROFESSIONAL EXPERIENCE

Quality Lead

08/2021 – 05/2025

DVAG

Test management & coordination, as well as introduction of CI/CD with quality-gate setup. Acting as cross-team Quality Lead: onboarding, guidance, consulting and training for the introduction of quality metrics and test automation within the pipeline across teams. **Key responsibilities**

- Design and implementation of functional and technical dashboards with Grafana for real-time quality measurement
- Documentation of quality metrics covering the measurable sprint progress
- Design and setup of CI/CD pipelines for multiple development teams (backend + frontend)
- Introduction of quality gates to safeguard quality within the CI/CD pipeline
- Adoption of Gauge (BDD)
- Roll-out of Playwright and integration into the existing CI/CD pipeline
- Functional and technical incident analysis
- Consultancy, design and implementation of solutions for quality-related issues

Tools

- IntelliJ / Visual Studio Code
- Java / JavaScript / TypeScript
- Playwright / Gauge / Taiko / Karate
- Python for processing and analysis of test and reporting data
- CI/CD / GitHub – reusable workflows
- Helm / Containers
- JIRA / Confluence
- Grafana
- Behaviour-Driven Development
- Consumer-Driven Contracts (Pact.io)

Technical Lead & Development

01/2024 – 04/2025

BKS

Technical lead & development: Design and implementation of a scalable automation solution for processing e-invoices and PDF invoices fetched from a mailbox of a leading online job platform. Full responsibility from requirements analysis through implementation to production go-live.

Focus areas:

- **Workflow automation:** Extraction, analysis and classification of incoming invoices using Python and Azure Functions.
- **E-invoice classification & data extraction:** Full processing in accordance with EU standard EN 16931 (ZUGFeRD, XRechnung), including structural and content parsing.
- **Salesforce integration:** Forwarding prepared invoice data via email to the downstream system for Salesforce import.
- **Auditing & logging:** Comprehensive documentation of all processing steps plus storage of original email content in the processing log.
- **Outlook management & SharePoint archiving:** Automatic moving and categorising of emails into predefined Outlook folders; archiving of original and generated invoice documents via Microsoft Graph API.
- **Monitoring & logging:** End-to-end real-time monitoring with Kibana, including alerting and dashboard creation.
- **Team coordination:** Managing the developer team incl. code reviews.

Tools & technologies

- Azure Functions: Serverless orchestration of automation workflows.
- Python: Core logic for data extraction, classification and integration with automated CI/CD processes, packaging, and comprehensive unit and integration tests for quality assurance.
- Microsoft Graph API: Access to Outlook mailboxes and SharePoint libraries.
- GitHub: Version control, CI/CD pipelines and collaborative development.
- Kibana: Monitoring, log analysis and performance dashboards.
- Streamlit: For developing an interactive web application for visualization.

Project Management & Technical Lead

04/2023 - 04/2024

Ryze

Project management & technical lead: Development and deployment of an AI-driven email bot to automate customer communication, AI-assisted processing of incoming emails and triggering of follow-up activities in existing SAP systems. Responsible for end-to-end project coordination and team management from idea to implementation.

Focus areas:

- **Development of ML models:** Design and training of specialized models for effective email classification, implemented via Azure Functions.
- **API integrations:** Seamless connection to Microsoft Outlook 365 via Microsoft Graph API and to SAP systems for customer data checks.
- **Process automation:** Automatic moving of emails based on classification and specific business rules, including complaint handling.
- **DevOps and monitoring:** Implementation of CI/CD pipelines and use of Kibana for monitoring.
- **Development of a Streamlit-based user interface:** Improved testability and visualization of process results.
- **Team coaching:** Technical guidance for developers with regular code reviews and problem-solving sessions.

Tools & technologies

- **Azure Functions:** For serverless application architectures and ML model execution.
- **Python:** Main programming language for the email bot and ML models.
- **Microsoft Graph API:** For accessing and processing emails in Microsoft Outlook 365.
- **SAP API:** For querying customer data and communicating with SAP systems.
- **GitHub:** For version control, CI/CD pipelines and collaborative development.
- **Kibana:** For real-time monitoring and system performance analysis.
- **Streamlit:** For developing an interactive web application for system monitoring.

AI Workshop for Business Integration

2023

Applications of AI in Business Context

AI workshop: Comprehensive presentation and live demonstration of innovative AI applications for business with a focus on practical implementation, theory and code examples.

Presentation content

- Comprehensive overview of AI fields and patterns (supervised/unsupervised/semi-supervised learning)
- Deep dives into machine learning, deep learning and natural language processing
- Detailed look at GPT models and their functionality (next token prediction)
- Practical prompt engineering with examples for various use cases
- Introduction to tools such as Hugging Face, Stable Diffusion, Midjourney and Auto-GPT

Practical workshop part

- Development of an intelligent Q&A bot with OpenAI GPT-3.5-Turbo
- Live development of a web scraper for data acquisition
- Extraction and vectorization of text embeddings with OpenAI models
- Implementation of similarity search for context-based answers
- Similarity analysis and visualization of results
- Creation of an interactive Streamlit user interface for the Q&A bot

Technologies used

- OpenAI API (GPT-3.5-Turbo, Embedding-Ada-002)
- Python with Pandas, NumPy and Streamlit
- Vector embeddings and cosine similarity for semantic search
- Web scraping with BeautifulSoup and Requests
- Prompt engineering and AI integration into business processes
- Integration via RESTful APIs

The full presentation is available at [Pitch.com](https://pitch.com). The complete source code of the developed Q&A bot is documented in my [GitHub repository](#).

Senior iOS Developer

04/2015 - 09/2015

Telekom

Senior iOS Developer: Further development of the rebuilt version of Deutsche Telekom's **Customer Center App**, extension with new functionalities for IFA. **Key responsibilities**

- Swift
- iOS 8
- Requests & responses to backend
- Error handling
- iPad / iPhone
- Scrum

Tools

- Xcode
- Git
- JIRA

QA, Test Management

Siemens

05/2009 - 03/2015

QA, test management, test automation, requirements engineering: A total of 5 projects were supported as QA & test manager and successfully implemented **Projects**

- SIPCA - Management system for employee annual targets and bonus calculation
- STM - Application and travel expense recording (Frontend: Web / Backend: SAP)
- GPM2 - Share bonus program for employees (Frontend: Web / Backend: JBoss)
- PATAC
- SOM - Management and overview of OrgUnits

Key responsibilities

- Creation of technical test concepts and test plans
- Defect tracking
- Management of CRs, communication between customers and developers
- Creation, maintenance and scheduling of test automation
- User acceptance tests
- Training of new testers and test automation engineers
- Support as test manager after project completion in regular operation
- Setup of acceptance tests
- Transfer of functional specification and detailed specification to Quality Center
- Monitoring of implemented requirements against the detailed concept

Tools

- HP ALM
- HP UFT
- HP QC
- Quick Test Pro

Load and Performance Tester

ING-DIBA

03/2009 - 05/2009

Load and performance tester: The goal of the project is the design and development of LoadRunner scripts for load testing a bundle of approx. 20 J2EE applications in a banking portal **Key responsibilities**

- Creation of test scripts in LoadRunner with the http protocol
- Execution of load tests and analysis of results
- Monitoring and reporting

Tools

- LoadRunner

Summary of Various Activities

01/2006 - 12/2008

British Telecom, Mobiliar, DB-Systel, Sparkassen Informatik, Loyalty Partner, Telekom, Itelium, Deutsche Post, Postbank

Load and performance tester / tester: Various projects, predominantly load & performance tests **Key responsibilities**

- Creation of test scripts in LoadRunner with the http protocol
- Execution of load tests and analysis of results
- Monitoring and reporting

Tools

- LoadRunner

PROJECTS

Additional projects outside the core business

wecation - wecation is a collaborative solution for organising shared experiences: plan, search, coordinate with friends or colleagues and enjoy the activity together!

QualityCluster - QualityCluster is an alliance of quality engineers jointly developing better solutions in software quality assurance.
Our goal is to implement more quality through a higher degree of automation.

AI-Driven Chatbot for Trade-Fair Interaction - Development of an interactive chatbot using RAG and OpenAI to optimise user interaction on a trade-fair website.

Automated NLP Analysis of PDF Documents - Using NLP technologies to boost efficiency in automated document analysis.

Email Classification and Processing Workflow - Integration of Microsoft Graph API, SAP, Azure Functions, REST API, OpenAI, Elasticsearch and Kibana to optimise email processing.

MCP – Model Context Protocol - Implementation of various tools for model-context orchestration.

AI Automation Function Modules - Building function modules for faster rollout of AI automation.

AI Consulting for Enterprises - Consultancy on the use of AI within companies.

