# **Mihai-Gabriel Ionita**



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During my 20 plus years of experience as a software engineer, I have strived to improve my expertise in general-purpose programming (with emphasis on: telecom, civil engineering and more recently, AI) and integrate innovative solutions into my work.

### **Skills**

pre-sales | delivery | system architecture & design | team-leading | programming | teaching | microlith | microservices | Ilm | ai | devops | databases | containers | linux systems administration | webservers | application servers | load/stress testing |

**Programming**: Java, C, C++, Python, Erlang, Javascript, Spring, Micronaut, TestContainers, Boost, Langchain **Databases**: MySQL, Postgres, H2, sqlite, Cassandra, Oracle, SQL, CQL, GraphQL, OneNDS **Linux**: Alpine, RedHat, Debian, Wolfi **Documentation**: Markdown, ASCIIdoc, PlantUML, Mermaid **Scripting**: bash, AWK, Perl **DevOps**: Kubernetes, Docker, Terraform, Helm, Ansible, Crossplane, Openstack HOT, K3S, K3D, Skaffold, Vagrant **Private Cloud**: Openshift, Openstack, Proxmox, VMWare **Public Cloud**: Azure, AWS **Monitoring**: Prometheus, Loki, Grafana, ELK, Micrometer, Open telemetry **Testing**: K6, JMeter, Postman/Newman **AI**: Azure Cognitive Services, Hugging Face, Mistral **Protocols**: REST, SOAP, HTTP, TCP, IP, ICMP, Diameter, WebRTC, SIP, Sigtran, SS7, JMX, LDAP, SNMP, SMTP, Syslog **Others**: Redis, Nix, ActiveMQ, dagger.io, Github actions, Azure pipelines, Gitlab CI/CD, XML, SAP-CC

# **Experience**

#### **Solution Architect, mindit.io**

Mar 2024 - present, Bucharest, Romania

Presales (solution design, estimates) followed by proof-of-concept application development, as well as delivery (high level design, implementation, automated testing and deployment) activities. Team-leading (code review, support for team members).

- Incorporate Al driven solutions, to enhance customer-facing procedures within a B2B agency, ensuring a more responsive initial client experience.
- Create a scalable education management system with Al safeguarding features, enabling early detection of issue concerning the education process.
- Create multi-tenant RAG based chat-bots for websites, enabling a human-like interaction for the customers' usual queries.

**Technologies used:** multi-agent Al, Azure Cognitive Services, Azure Container Apps, Terraform, Java, Python, K6, Azure managed Redis, MySQL, bash

#### **Solution Architect, RSystems**

Dec 2020 - Mar 2024, Bucharest, Romania

Presales (solution design, estimates), delivery (from design to implementation and automated testing), support, team-lead and teaching activities.

- Created custom telecommunication messaging platform, designed to maintain synchronization across various systems, using multiple retry mechanisms, enabling datadriven decision making to personalize a customer's experience. Developed using microservices and deployed on Kubernetes. Example: being a subscriber to service A, allows you to consume a limited amount of service B, where A and B have different providers.
- Tier 3 support activities for containerized production systems, spread across multiple clusters

**Technologies used:** Java, Flight Recorder, ELK, Kubernetes, Helm, Skaffold, JMeter, Postman, bash, Spring, Openshift, Alpine, RedHat, CI/CD pipelines

#### System Architect, RSystems

Apr 2012 - Dec 2020, Bucharest, Romania

- Improved B2B services platform, for a telecommunication operator, enabling automated charging and reconciliation.
- Created JAIN-SLEE based call-control solution, on private cloud infrastructure, for a telecommunication operator.
- Developed a comprehensive MVNO solution, ensuring fast time-to-market for a classic telecommunication operator's prepaid plans. The solution facilitated efficient charging, communication, and customer service, enabling the marketing department to come up with ever-changing customer offers.

Technologies used: Java, JAIN-SLEE, Rhino TAS, Erlang, SAP-CC, Openstack, Vagrant, Linux

#### System Integrator, RSystems

Aug 2011 - Apr 2012, Irving, Texas, US

• Integrated a AAA solution in a tier 1 US telecommunication operator's network.

Technologies used: OneNDS, OneAAA, LDAP, Diameter, Solaris

#### **System Architect, Computaris**

Dec 2008 - Aug 2011, Bucharest, Romania

- Created an integration platform between a telecommunication operator and third-party service providers based on a AAA (Authentication, Authorization, Accounting) platform, to create additional revenue streams.
- Created additional components for that platform, interfacing with LDAP and GreenPlum databases.
- Created a performance test suite, based on Apache JMeter.

Technologies used: Java, JMeter, OneNDS, OneAAA, LDAP, GreenPlum, Linux

#### **Senior Software Engineer, Computaris**

Mar 2007 - Dec 2008, Bucharest, Romania

• Customer base migration for a telecommunication operator, to a new provisioning platform, without service disruption.

• Provisioning platform development for multi-national operator.

Technologies used: Java, Teligent P90

#### **Software Engineer, Computaris**

Mar 2006 - Mar 2007, Bucharest, Romania

- Developed an XML based platform for delivery of new telecommunication services, with very small time-to-market, including charging, provisioning and call-control capabilities.
- Ericsson Diameter charging SDK adaptation, for use in the XML based platform.

Technologies used: C++, Java, Diameter, XML, Linux

#### Research Engineer, University of the Bundeswehr

Aug 2003 - Mar 2006, Munich, Germany

Delivery (implementation and testing) and support.

- Developed a structural assessment application, using OpenCascade and Sofistik, integrated with wireless communication technology to facilitate real-time measurement input.
- Support activities during application field testing; gathering user feedback and real input data.

# **Languages**

• Romanian: Native

English: Full professional proficiency
German: Limited working proficiency
French: Elementary proficiency

## **Education**

#### **Bachelor in Engineering, Politehnica Univerity of Bucharest**

1998 - 2003, Bucharest, Romania

- Information Technology
- CCNA (Cisco Certified Network Administrator) studies

2003, Munich, Germany, University of the Bundeswehr

- · Bachelors dissertation
- Erasmus student exchange program