

# MIHAI DINCA - RESUME

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Nürnberg, Germany

## Contact

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- **Email:** [dincamihai@gmail.com](mailto:dincamihai@gmail.com)
- **Github:** <https://github.com/dincamihai>
- **Linkedin:** <https://linkedin.com/in/mdinca>

## Summary

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I am a **Lead/Staff Backend Engineer** and **Architect** specializing in high-performance, data forms.

My core focus:

- **Distributed Systems Design:** Architecting scalable, event-driven systems on AWS (Serverless Functions).
- **Technical Leadership: Servant Manager** driving architectural decisions, mentoring engineers in “manage work, not people” culture.
- **System Resilience:** Evolving monolithic architectures into decoupled systems to reduce downtime and eliminate release friction.
- **Process & Security:** Contributing to **ISO 27001 / ISMS** frameworks to align engineering practices with security requirements, focusing on risk assessment and asset management.

**Core Tech Stack:** Python, Golang, AWS (Step Functions, SQS/SNS, Lambda), Terraform, SQL, NoSQL databases.

[See the courses section]

## Strategic Impact & Key Achievements

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### Architecture: Monolith to Event-Driven Migration

- **Situation:** A high-performance database SaaS product relied on a monolithic control plane architecture with a centralized management node for orchestration.

- **Problem:** The architecture required downtime for releases, lacked customer isolation, and had a single node that acted as a scaling bottleneck and a single point of failure.
- **Action:** Led a 7-person team to implement a decoupled, **event-driven architecture** (AWS Lambda, API Gateway, SNS). I re-engineered the orchestration layer to use the database API directly within **Step Functions**, removing the centralized management node. Managed a **phased rollout** strategy to migrate operations without downtime.
- **Result:** Achieved release reliability (zero-downtime deployments), removed a major scaling bottleneck, and increased the system's capacity for concurrent platform operations.

## Security: ISO 27001 Compliance & ISMS Integration

- **Situation:** The SaaS platform required ISO 27001 certification to meet enterprise security requirements.
- **Problem:** The platform lacked documented policies, procedures, and a verifiable asset inventory, making assessment and audit readiness impossible. **Action:** Attended specialized ISO 27001 training and conducted a technical integration into the corporate ISMS. I established the asset inventory, applying a **criticality matrix** to assign risk scores and prioritize controls. I implemented a risk assessment framework and a compliance monitoring system while collaborating with the AWS TAM on security evaluations.
- **Result:** Established a verifiable security posture, aligned operations with the corporate ISMS, and completed the successful certification process.

## Observability: Reliable Event-Driven Alerting

- **Situation:** The platform relied on a legacy monitoring system for service health.
- **Problem:** High rates of false positives (alert fatigue) and a “black box” design made debugging and configuration difficult.
- **Action:** Designed and implemented an **AWS-native, event-driven alerting engine** using CloudWatch Metrics and CloudWatch Metrics Insights for dynamic configuration.
- **Result:** Effectively eliminated false alerts, provided full auditability of alert evaluations, and enabled support teams to troubleshoot issues independently.

## Leadership: Scaling High-Performance Teams

- **Situation:** The SaaS development team needed to scale from a single backend engineering unit (7 members).
- **Problem:** The team lacked UI/Cloud expertise and had no structured hiring or onboarding process.
- **Action:** Designed technical interviews (culture-fit & system design) and hired 5 engineers. Established an onboarding framework and a collaborative 1-on-1 structure.
- **Result:** Successfully scaled the team, established a culture of delivery and continuous improvement, and delivered all planned roadmap items for 2025.

# Employment History

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**Technical Engineering Manager & Staff Engineer** - Exasol GmbH (Apr 2021 - NOW)

*Focus: SaaS Architecture, Team Leadership, Security Compliance, AWS Serverless.*

**Python Developer** - SUSE Linux GmbH (Apr 2016 - Dec 2019)

*Focus: SUSE Manager, Salt Integration, Scalability, Packaging.*

**Web Developer (Freelance)** - Various Clients (Oct 2013 - Apr 2016)

*Focus: REST APIs, Flask/Django, Frontend Integration, Optimization.*

**Web Developer** - Eau de Web (Apr 2012 - Oct 2013)

*Focus: Data Visualization, Plone, Zope, SPARQL.*

**Aircraft Maintenance Engineer & Referent** - Jetran Air / Meridiana (2006 - 2011)

*Focus: Safety-Critical Systems, Highly Regulated Environments, Reliability Reporting.*

# Education

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## Courses

- ISO 27001 - Information Security Management System (ISMS)
- Architecting with Google Kubernetes Engine:
  - Google Cloud Platform Fundamentals: Core Infrastructure
  - Architecting with Google Kubernetes Engine: Foundations
  - Architecting with Google Kubernetes Engine: Workloads
  - Architecting with Google Kubernetes Engine: Production
- Functional Programming in Scala Specialization
- Big Data Analysis with Scala and Spark
- Parallel programming in Scala
- Functional Program Design in Scala
- Functional Programming Principles in Scala
- Programming with Google Go Specialization
- IBM - Applied Data Science Specialist
- Coursera - IBM - Advanced Machine Learning and Signal Processing
- Coursera - IBM - Fundamentals of Scalable Data Science
- Coursera - IBM - Applied Data Science Capstone

- [Coursera - IBM - Data Visualization with Python](#)
- [Coursera - IBM - Data Analysis with Python](#)
- [Coursera - IBM - Python for Applied Data Science](#)
- Udacity - Self-Driving Car Engineer (Term1 completed)
- [Coursera - Sequence Models](#)
- [Coursera - Convolutional Neural Networks](#)
- [Coursera - Structuring Machine Learning Projects](#)
- [Coursera - Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Avoiding overfitting](#)
- [Coursera - Neural Networks and Deep Learning](#)
- Coursera - Machine Learning - Andrew Ng
- C++ for programmers - Udacity
- C++ - solelearn
- Statistics and Probability - KhanAcademy
- Scrum Training - SUSE
- Airbus A320 - B2 Course
- B2 Part-66 License
- Trainee OJT A318/319/320/321 CFM-56 - TAROM

## Degrees

### Information Engineering Degree

Electrical, Electronics and Communications Engineering - “Politehnica” University of Bucharest

#### Relevant Courses

- Java
- C
- Parallel programming with POSIX C
- Matlab
- Operating Systems
- Computer Architecture
- Computer Networks
- PHP
- Statistics and Probability

# Aid Programmer - Level 2

“I.L. Caragiale” College of Bucharest 1998 - 2002

## Relevant Courses

- Pascal
- FoxPro
- Data Structures and Algorithms
- Mathematics
- Physics

## Languages

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- English - Advanced
- German - Intermediary
- Italian - Intermediary

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