

Alexandru Iordan

Software Engineer

Looking for an experienced solution-oriented developer with proven technical expertise?

Throughout my IT career, highlighted by a Master's in Web and Data Science and impactful roles at Neovendi and Continental AG, I've specialized in building scalable software solutions to refine toolchains, while also taking the lead on cutting-edge European projects and making contributions to the technical research of database benchmarking.

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WORK EXPERIENCE

Software System Engineer

09/2022 - Present

Neovendi GmBH, Frankfurt, Germany

Neovendi is a medium sized company that focuses on building solutions for its customers in the automotive industry, the biggest one being Deutsche Bahn Netz, a client I have represented in a multinational environment.

DB-Netz

My responsibilities encompass designing and developing cutting-edge software solutions, alongside leading teams and effectively managing work packages and project deliverables.

- Developing software able to pre-process, analyze, and translate models from SysML to Event-B or Promela utilizing Java for backend development and integrating RESTful APIs for effective data communication.
- Developed Promela and SysML Metamodels based on Abstract Syntax Trees as intermediary model incorporating advanced algorithms and data **structures** to ensure efficient parsing and transformation processes.
- Implemented modular transformation using Java Modelling Framework, eMoflon::IBeX and Triple Graph Grammar Rules.

Skills: Python, Java, AWS, Docker, GIT, REST API

Full-stack Developer

06.2019-11.2019 06.2018-11.2018

Continental AG, Iasi, Romania

During my internships at Continental AG, I worked on internal projects that focused on creating software solutions that optimize and automate vital workflows within the company. Using Agile methods and continuous integration tools, I set up systems to automatically test and deploy code changes.

Internship 2 (2019)

- Developed a web-based app to parse DLT files (Diagnostic Log and Trace), enhancing pattern matching with database checks.
- Engineered a high-performance software solution capable of processing 100,000 traces per hour, utilizing advanced messaging queues and eventdriven triggers to efficiently identify and extract complex patterns.
- Integrated and synchronized Java and Python processes to automate trace uploads and parsing within JIRA, streamlining the QA process.
- Managed Docker containers to enhance scalability and deployment changes.

Skills: Python, Java, Docker, Git, Django, Hibernate, MySQL, JIRA.

Activities and Certifications

aws April 2023

AWS Certified Cloud Practitioner Certification.

ID: MJPY5RQLYFQQQ45J

M Data Science Research Projects:

Medium

SKILLS

aws **AWS** Cloud

Spring Boot

DevOps

ReactJS

Linux

2 Python igorplusNoSQL

TypeScript

SQL

JavaScript JS HTML/CSS

MongoDB

Git/Github

JAVA

Docker

LANGUAGES

English (Bilingual Proficiency) German (Elementary Proficiency)

Internship 1 (2018)

- Developed Java tool for automatic extraction of PR (Problem Report) patterns, reducing resolution time by 60%
- Designed and implemented a database-driven solution with Python and MySQL to expedite PR verification, improving tester workflows.
- Constructed a seamless user interface using Java, integrated with robust server-side operations powered by Python, MySQL, and Apache Tomcat.

Skills: Python, Java, Git, MySQL, Apache Tomcat.

Academia, Research and Projects

MSc. Web and Data Science

2021 - 2023

University of Koblenz, Germany

This Master's program allowed me to explore the world of academia and research from a different perspective. I was co-opted into the CEIR (Center for Enterprise Information Research) Group and brought significant contributions to the research projects I led.

Master Thesis Research Project

A **Full-stack Web Application** was developed to benchmark CRUD (Create, Read, Update, Delete) atomic operations in graph databases, specifically designed to disable graph database optimization systems. It was tested across various scenarios pertinent to business environments.

- Designed and built Full-Stack Spring Boot benchmarking application to rigorously test performance of leading graph databases Neo4j, OrientDB and ArangoDB.
- Created customizable, automated benchmarking workflows by using Github Actions CI/CD and data generators to simulate diverse real-world graph workloads.
- Implemented optimizations and hands-on configuration of databases while ensuring fair benchmarking, demonstrating expertise in database tuning.
- Analyzed extensive comparative benchmark results to identify optimal database and configurations for complex graph use cases like social networking.

Skills: Java Spring Boot, Docker, Javascript, jQuery, Cypher, Python, Docker, Maven, Github Actions, Github Runner, Wireguard

Bachelor of Information Technology (Engineering Department)

2016-2020

GPA 1.3 / 1

University Gheorghe Asachi Iasi, Romania

Bachelor of Engineering (Computer Science) is a rigorous program that equips with a strong foundation in computer science principles, algorithms, and software development skills to tackle complex technological challenges.

Bachelor Thesis - 1.3 GPA

Virtual Assistant – Full Stack Web Al Powered Chatbot for Chronic Disease Management

- Architected and built end-to-end conversational agent using Python, NLTK,
 TensorFlow for automated patient interactions;
- Designed disease progression analysis and feedback system using neural networks and NLP:
- Optimized chatbot response latency from 800ms to 400ms and improved ML classification precision to 92% via model tuning.

Skills: Python, Django, NLP, NLTK, TensorFlow, MySQL

CLOUD SKILLS

- AWS EC2 & Autoscaling group
- AWS CODE Pipe
- AWS S3
- AWS RDS
- AWS SNS and SQS
- AWS VPC and Gateways
- AWS IAM
- AWS Lambda
- AWS CloudFormation

ADDITIONAL SKILLS

- Serverless Architecture
- Fullstack development
- DevOps Approach
- Agile methodology

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