Mateusz Idziejczak

AI/ML Principal Software Engineer

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SUMMARY

Highly accomplished AI/ML Principal Software Engineer with over 7 years of extensive experience designing, developing, and deploying robust, scalable machine learning-powered software solutions in production environments. Proven expertise in transforming complex ML prototypes into high-performance, maintainable systems, contributing to architectural strategy, and implementing cloud-native infrastructures on AWS. Adept at full-stack development (Python, Java, Node.js, Angular), containerization (Docker, Kubernetes), and CI/CD best practices. Eager to leverage deep technical skills and leadership capabilities to drive innovative AI solutions in the medical industry.

EXPERIENCE

AI/ML Principal Software Engineer
Google
2019 – Present

- Led the design and development of scalable, high-performance AI/ML systems, translating complex research prototypes into production-grade applications that handled millions of requests per second.
- Engineered robust MLOps pipelines using Python, TensorFlow, and Kubeflow, significantly reducing model deployment time by 40% and enhancing model refresh frequency.
- Architected and implemented critical backend services using Go and Node.js, ensuring low latency and high availability for AI-driven features, resulting in a 25% improvement in user interaction response times.
- Championed and integrated CI/CD best practices (GitLab CI/CD, Jenkins) across development cycles, improving deployment reliability by 30% and reducing manual intervention.

Senior Software Engineer
Tech Innovations Inc.
2017 – 2019

- Developed and maintained core backend services for a high-traffic SaaS platform using Java with Spring Boot and Python with Django, serving over 500,000 active users.
- Implemented containerization strategies using Docker and orchestrated microservices deployment on Kubernetes, enhancing system scalability and reducing infrastructure costs by 15%.
- Collaborated with data scientists to integrate initial machine learning models into the production environment, developing APIs for real-time inference and batch processing.

PROJECTS

TaxGPT (Personal Project)
2023

- Developed a full-stack, AI-powered application designed to automate personal tax declaration filing, leveraging a large language model (LLM) for document interpretation and data extraction.
- Engineered the backend using Python (FastAPI) for ML model serving and Node.js for secure user authentication and data management, reducing manual tax form completion time by over 90%.
- Built a responsive frontend using Angular, providing an intuitive user interface for uploading documents and reviewing generated declarations, deployed on AWS with Docker and Kubernetes for scalability.

Personalized Content Recommendation Engine
2022

- Designed and implemented a collaborative filtering recommendation engine using Python and PyTorch, which personalized content delivery for a mock streaming platform.
- Achieved a 15% increase in user engagement metrics by deploying the model as a RESTful API, integrating it with a lightweight Node.js service for real-time recommendations.

Serverless Data Processing Pipeline
2021

- Created a serverless data processing pipeline on AWS using Lambda, S3, and DynamoDB for real-time analytics of mock sensor data.
- Streamlined data ingestion and transformation, reducing processing latency by 50% compared to traditional batch methods and demonstrating proficiency in cloud-native solution design.

TECHNICAL SKILLS

Programming Languages

Python (Advanced) Java (Advanced) Node.js (Advanced) Golang (Advanced)

Cloud Platforms & DevOps

AWS (Advanced) Docker (Advanced) Kubernetes (Advanced) CI/CD (Advanced) Terraform Git

AI/ML

Machine Learning Deep Learning Natural Language Processing MLOps TensorFlow PyTorch
Model Deployment Scalable AI Systems

Frameworks & Libraries

Spring Boot Django Flask Angular (Advanced) React FastAPI

Databases

PostgreSQL MongoDB SQL

Architecture & Methodologies

Microservices Distributed Systems Cloud-Native Architectures Agile/Scrum System Observability

EDUCATION & QUALIFICATIONS

Master of Science in Computer Science (Specialization in AI), *University of Warsaw* - 2015 – 2017

Bachelor of Engineering in Software Engineering, *Poznan University of Technology* - 2011 – 2015

Languages
- **Polish:** Native
- **English:** Fluent (C1)