Lukas Pfannschmidt

MACHINE LEARNING ENGINEER | CLOUD ENGINEER

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Summary_

A Machine Learning Engineer with experience in cloud and backend engineering, emphasizing machine learning operations. Knowledgeable in Python, Java, Julia, PostgreSQL, and SDK development, along with deployment tools such as Docker, Kubernetes, Terraform, and AWS services. Experienced in implementing AI solutions e.g. using large language models for text matching and information extraction. Capable of collaborating with interdisciplinary teams and contributing to international projects, with a history of publishing and presenting peer-reviewed articles in the machine learning domain. Demonstrated tech leadership in driving innovation and improving processes.

Skills ____

Machine Learning	PyTorch, Scikit-learn, Keras, LightGBM, Pandas, Tranformers, LLM (GPT)
Engineering	Python, SDK development, Java, Julia, PostgreSQL, Redis, RESTful APIs, GraphQL, Sonarcloud
Deployment	Docker, Kubernetes, Terraform, ArgoCD, Jenkins, GitHub Actions, Helm, Istio, Prometheus, Grafana, Seldon, Polyaxon
AWS	Lambda, EC2, ECS, EKS, Cloudwatch, RDS, VPC, IAM, SNS, SQS, ECR, Sagemaker, S3, DynamoDB, ELB, Route53
Languages	German (native), English (fluent), French (basic)

Experience _____

super.ai

MACHINE LEARNING ENGINEER

- ML Engineering: Designed a scalable AI model backend service (DB, API) using an event-driven serverless architecture. Established a Kubernetes-based model deployment, reducing costs by 80%. Developed and extented **open-source** Python SDKs for interacting with platform.
- Cloud Engineering: Led the migration of a heterogeneous legacy AWS stack to Kubernetes using Terraform (IaC), resulting in a 60% cost reduction, enhanced fault tolerance, and streamlined maintenance. Established compliance rules within the organization (SOC2).
- DevOps: Maintained and expanded CI/CD pipelines (Jenkins, ArgoCD) for backend and application deployments, and introduced coding standards to increase agility.
- AI Research: Investigated and implemented AI solutions to address customer challenges, utilizing state-of-the-art large language models (LLM) for text matching and information extraction applied to millions of records.

Center for Cognitive Interaction Technology

APPLIED SCIENTIST

- Developed and researched innovative machine learning algorithms.
- Published and presented multiple peer-reviewed articles in the machine learning domain.
- Collaborated on an international biomedical data processing project.
- Contributed to an interdisciplinary team of global scientists and researchers.

Education

Dr. rer. nat. (PhD) in Machine Learning

BIELEFELD UNIVERSITY, CITEC, SFU VANCOUVER

- Achieved Magna cum laude distinction
- · Conducted research on feature selection in complex biomedical data
- Developed and released a novel algorithm for widespread use

B.Sc. & M.Sc. in Bioinformatics and Genome Research

BIELEFELD UNIVERSITY

• Obtained a Bachelor's degree grade of 1.7 and a Master's degree grade of 1.5

Bielefeld, Germany; Vancouver,

Oct. 2015 - Nov. 2020

Berlin, Germany Nov. 2020 – present

Bielefeld, Germany Vancouver, Canada 2016 - 2021

Bielefeld, Germany 2011 - 2016