Maria
Architect/Team-lead AI/Machine Learning Engineer

SUMMARY

- AI/ML Engineer with 8+ years leading projects in computer vision, NLP, and predictive modeling, leveraging Python, C++, and cloud platforms (AWS, Azure, GCP).
- Expertise in designing scalable ML pipelines, time series forecasting, and real-time data processing using TensorFlow, PyTorch, Spark, and MLflow.
- Proven track record managing teams and delivering AI-driven solutions including automated lead generation, chatbot systems, and image-based product classification.
- Strong background in applied mathematics with Master's degree, skilled in advanced algorithms, ensemble methods, and deep learning architectures (CNNs, Transformers, GNNs).
- Hands-on experience with databases (MySQL, PostgreSQL), containerization (Docker), and cloud-native services for end-to-end ML lifecycle management.

TECHNICAL SKILLS

Main Technical Skills	Python (8 yr.), TensorFlow (8 yr.), PyTorch (8 yr.), PostgreSQL (2 yr.), SciPy (8 yr.)
AI Tools & Assistants	Claude, Gemini
Programming Languages	Python (8 yr.)
AI & Machine Learning	Amazon Machine learning services, AWS SageMaker, AWS Textract (2 yr.), BERT (1 yr.), Claude, Hugging Face (4 yr.), Keras (8 yr.), LangChain, LangGraph, LSTM (8 yr.), Mlflow (2 yr.), Neural Networks (8 yr.), NumPy (8 yr.), OpenAI (2 yr.), OpenCV (8 yr.), Optuna, PandasAI (8 yr.), PyTorch (8 yr.), RNN, Scikit-learn (1 yr.), Spacy (4 yr.), Tensorboard (4 yr.), TensorFlow (8 yr.), Transformer (4 yr.), Xgboost (2 yr.), YOLO (4 yr.)
Java Frameworks	Apache Spark (1 yr.)
Scala Frameworks	Apache Spark (1 yr.)
Python Libraries and Tools	Beautiful Soup (2 yr.), Keras (8 yr.), Matplotlib (2 yr.), NLTK (3 yr.), NumPy (8 yr.), PySpark (2 yr.), PyTesseract (2 yr.), PyTorch (8 yr.), Scikit-learn (1 yr.), SciPy (8 yr.), Seaborn (2 yr.), TensorFlow (8 yr.)
Data Analysis and Visualization Technologies	Apache Spark (1 yr.), Databricks (2 yr.), DataFrame library, GeoJSON (1 yr.), LightGBM (2 yr.), PandasAI (8 yr.), Time Series (1 yr.)
Databases & Management Systems / ORM	Apache Spark (1 yr.), AWS DynamoDB (2 yr.), MySQL (2 yr.), PostgreSQL (2 yr.), Supabase

Cloud Platforms, Services & Computing	GCP
Amazon Web Services	AWS Boto3 (4 yr.), AWS DynamoDB (2 yr.), AWS Lambda (2 yr.), AWS SageMaker, AWS Textract (2 yr.), botocore (4 yr.)
Google Cloud Platform	Cloud Functions (2 yr.)
Azure Cloud Services	Databricks (2 yr.)
Industry Domain Experience	Logistics & Supply Chain (1 yr.)
Third Party Tools / IDEs / SDK / Services	AutoCAD (8 yr.)
Deployment, CI/CD & Administration	CD DevOps pipelines
SDK / API and Integrations	Collections API (8 yr.), Google Maps API (1 yr.), Twilio (1 yr.)
Virtualization, Containers and Orchestration	Docker (4 yr.)
Collaboration, Task & Issue Tracking	IBM Rational ClearCase (8 yr.)
Web/App Servers, Middleware	Web Methods (8 yr.)
Other Technical Skills	CNNs (8 yr.), ES, Spark MLLib (1 yr.), Tesseract OCR (4 yr.)

WORK EXPERIENCE

AI/Machine Learning Engineer/Team Lead (Demand intelligence platform)

Duration: 1 year

Summary:

- Creation of a fully automated service for various predictions of city load in UAE based on current events, weather, and historical data from multiple non-synchronized sources
- The platform integrates geographical data at multiple levels to provide accurate forecasting

Responsibilities:

- Manage the project and lead the team
- Develop parsing modules for all data sources and analyze the data
- Develop time series forecasting models based on historical data
- Design and create database for storing and continuous update of data
- Process geographical data covering different geographical levels (country, emirate, city, district)
- Build pipelines for asynchronous execution of different models

Technologies: Python, OpenCV, Tensorflow, Google Maps, AWS (SageMaker, Lambda, S3, EC2, Redshift), Spark, MLlib, GeoJSON, Shapely

AI/Machine Learning Engineer (Nosis AI Voice Bot)

Duration: 6 months

Summary: Development of a chatbot for polling a large number of people regarding their political preferences for a particular event in Australia, designed to handle various human behaviors and simulate real-human agent interactions.

Responsibilities:

- Manage the project and lead the team
- Design conversational flow for polling
- Implement various types of questions for different expected or unexpected human behavior
- Apply fallbacks for questions without expected replies
- Tweak agent settings to imitate a real-human agent
- Manage demos and large group tests, upgrading the flow based on results

Technologies: Python, Dialogflow ES, Twilio, nltk, spaCy

AI/Machine Learning Engineer/Team Lead (Genie Words Ads Generation)

Duration: 1 year

Summary: Development of an AI system generating contextual selling advertising headlines and descriptions for texts scraped from websites in Danish and English, incorporating advanced text generation and filtering techniques.

Responsibilities:

- Manage the project and lead the team
- Develop text generation system based on Markov Chains and large language models
- Improve service with filtering system using distance metrics like cosine similarity, Levenshtein distance, and fuzzy logic
- Include sentiment, polarity, and linguistic analysis
- Implement keyword extraction algorithms
- Create generation algorithms based on templates
- Add human-in-the-loop evaluation for continuous model improvement

Technologies: Python, OpenAI, Bert, Transformers, SpaCy, NLTK, Numpy, Scipy, AFINN, Markov Chains, Pandas, scikit-learn, PyTorch

AI/Machine Learning Engineer (Wie Label)

Duration: 6 months

Summary: Creation of a platform for scanning products, classifying them, detecting specific features, and generating marketing descriptions, including pre- and post-processing modules for asynchronous generation and filtering.

Responsibilities:

- Classify products in images and data based on customer-provided ontology
- Extract labels, fit, material composition of products
- Design database and data structure
- Generate product descriptions using OpenAI in German
- Create pre- and post-processing modules for asynchronous generation, processing, and filtering

Technologies: Python, OpenAI API, Pandas, NLTK, Spacy, Boto3, Botocore, Supabase, OpenCV

AI/Machine Learning Engineer (Porch)

Duration: 2 years

Summary: Contribution to an automated lead bidding system on auctions, focusing on investigating poor model performance, researching and processing large datasets, and improving modeling and data processing pipelines.

Responsibilities:

- Analyze and investigate poor model performance
- Create local databases using Docker
- Participate in database migration to Azure
- Form and filter datasets for training
- Develop and train new models
- Optimize codebase for training and evaluation
- Research and implement new features for modeling
- Re-create pipelines using Apache Spark

Technologies: Python, SQL, Azure, Databricks, Docker, Polars, Pandas, XGBoost, MLFlow, scikit-learn, Spark, PySpark, Numpy, Matplotlib, Seaborn

AI/Machine Learning Engineer (TradeSun)

Duration: 2 years

Summary: Automation of processing unstructured financial trading documents to extract necessary information for financial transactions, improving throughput, turnaround, and thoroughness of trade operations.

Responsibilities:

- Extract and identify key fields from documents to classify type and predict relevance
- Develop new features, algorithms, and models; update existing ones
- Improve evaluation process and invent business metrics
- Log and solve bugs in the service
- Create a demo for real-time information extraction with click-highlighted areas
- Continuously improve existing features and processes

Technologies: Python, Pytesseract, AWS (SageMaker, Lambda, Step Functions, DynamoDB, Textract, S3), Pandas, Numpy, BeautifulSoup, Boto3, Botocore

AI/Machine Learning Engineer/Team Lead (Mauka Digital Lead Generation)

Duration: 6 months

Summary: Development of a fully automated lead generation system to find qualified leads, place them in the sales funnel, and increase quarterly revenue through advanced text and speech analysis.

Responsibilities:

- Manage the project and lead the team
- Analyze and filter datasets
- Build custom text classifiers to analyze human speech for sales management

- Implement methods for context and text analysis including sentiment analysis, language detection, and part of speech analysis
- Design and build database structure

Technologies: Python, Spacy, NLTK, Pandas, scikit-learn, Numpy, Scipy, NRCLex, Tensorflow

AI/Machine Learning Engineer (Mojo)

Duration: 6 months

Summary: Development of a platform for cell distortion recognition in clinical trials to accelerate selection of high-quality sperm, improving accuracy and enabling more targeted fertility treatments.

Responsibilities:

- Create algorithm to detect spermatozoids in microscope video feed
- Classify items by mutations to select suitable samples for conception
- Detect position, movement, direction, and speed of spermatozoids
- Apply filters to improve tracking processes
- Log and solve bugs in the service

Technologies: Python, OpenCV, Numpy, Scipy, Tensorflow, Tensorboard, Scikit-image, YOLO

EDUCATION

- **V. N. Karazin Kharkiv National University**
  Master of Applied Maths
- **V. N. Karazin Kharkiv National University**
  Bachelor of Applied Maths