

Moon Michael Jones

Expert Innovative AI & Machine Learning Engineer

SUMMARY

AI & Machine Learning Engineer with 8+ years designing and deploying production ML systems in NLP, recommendation engines, forecasting, anomaly detection, and computer vision.

Expertise in Python, PyTorch, TensorFlow, scikit-learn, Hugging Face, FastAPI, Docker, Kubernetes, AWS, and MLOps tools like MLflow and Airflow.

Proven track record building scalable AI platforms, including retrieval-augmented knowledge assistants and real-time fraud detection frameworks.

Strong foundation in computer science with a B.Sc. degree, skilled in end-to-end ML pipelines from data ingestion to model monitoring and API deployment.

TECHNICAL SKILLS

Main Technical Skills	Python (8 yr.), PyTorch (4 yr.), TensorFlow (4 yr.), Scikit-learn (6 yr.), Hugging Face (3 yr.)
Programming Languages	Python (8 yr.)
AI & Machine Learning	Amazon Machine learning services, AWS ML (Amazon Machine learning services), BERT (3 yr.), Hugging Face (3 yr.), LSTM (2 yr.), Mlflow (3 yr.), Neural Networks (2 yr.), NLP (8 yr.), OCR (2 yr.), OpenCV (1 yr.), PyTorch (4 yr.), RoBERTa (3 yr.), Scikit-learn (6 yr.), TensorFlow (4 yr.)
Java Frameworks	Apache Spark (2 yr.)
Scala Frameworks	Apache Spark (2 yr.)
Python Frameworks	Flask (3 yr.)
Python Libraries and Tools	PyTorch (4 yr.), Scikit-learn (6 yr.), TensorFlow (4 yr.)
Salesforce Ecosystem	SalesForce Workflow (2 yr.)
Java Libraries and Tools	Spring Data (8 yr.)
.NET Platform	WPF (2 yr.)
Data Analysis and Visualization Technologies	Apache Airflow (2 yr.), Apache Spark (2 yr.), Decision Tree (1 yr.), Logistic regression (6 yr.), Random Forest (1 yr.), SVM Classification (1 yr.), Vector (1 yr.)
Databases & Management Systems / ORM	Apache Spark (2 yr.), AWS ElasticSearch

UI Frameworks, Libraries, and Browsers	HTML/CSS Preprocessors (8 yr.), Semantic UI (1 yr.)
Amazon Web Services	AWS ElasticSearch, AWS ML (Amazon Machine learning services)
UI/UX/Wireframing	3D Modelling (3 yr.)
Deployment, CI/CD & Administration	Automation deployment CI, CD, CI/CD (2 yr.)
Methodologies, Paradigms and Patterns	Clean Architecture
SDK / API and Integrations	Collections API (5 yr.)
Version Control	Git (8 yr.), Github Actions
Collaboration, Task & Issue Tracking	Jira (3 yr.)
Message/Queue/Task Brokers	Kafka (2 yr.)
Blockchain and Decentralized Software	Optimism (2 yr.)
Virtualization, Containers and Orchestration	Oracle VM VirtualBox (1 yr.), Terraform
Platforms	Quadient Automation (5 yr.)
QA, Test Automation, Security	Usability tests (1 yr.)
Other Technical Skills	CNNs (3 yr.), SHAP (1 yr.), Teamwork (5 yr.), Unreal Engine (8 yr.)

WORK EXPERIENCE

Lead AI/ML Engineer - NextMe (Enterprise AI Insights Platform and Related AI Solutions)

Duration: June 2022 - March 2026

Summary:

- Architected an enterprise AI insights platform integrating transactional, support, and behavioral data into reusable machine learning pipelines for multiple business teams
- Developed various AI solutions including knowledge assistants, document classification, recommendation services, forecasting pipelines, and computer vision workflows to enhance business operations and decision-making

Responsibilities:

- Designed and implemented machine learning pipelines and AI services across multiple domains including NLP, recommendation, forecasting, and computer vision.

- Developed retrieval-augmented knowledge assistant using transformer embeddings and LLM orchestration.
- Fine-tuned transformer models for document classification, sentiment analysis, and intent detection.
- Built recommendation and forecasting services to improve user engagement and operational planning.
- Implemented computer vision workflows for product image quality and defect recognition.
- Established MLOps standards including MLflow, model registry, experiment tracking, and production monitoring.
- Deployed scalable inference APIs using FastAPI, Docker, and Kubernetes with optimized latency and autoscaling.
- Introduced drift detection, explainability techniques, and post-deployment score analysis to maintain model trust and stability.
- Collaborated with product managers, data engineers, and stakeholders to define success metrics and delivery priorities.
- Mentored engineers on feature design, error analysis, model debugging, and reproducible experimentation.

Technologies: Python, PyTorch, TensorFlow, Hugging Face, FastAPI, Docker, Kubernetes, MLflow, BERT, RoBERTa, CNNs, transformer embeddings, vector indexing, semantic search, LLM orchestration

Senior Machine Learning Engineer - Arity (Predictive Maintenance, Fraud Detection, Dynamic Pricing, and NLP Workflows)

Duration: May 2020 - May 2022

Summary:

- Led development of predictive maintenance models on industrial sensor data, real-time fraud detection frameworks, dynamic pricing engines, and NLP workflows for ticket routing and issue summarization
- Designed feature stores and streaming inference pipelines to support near real-time alerting and case management

Responsibilities:

- Led predictive maintenance modeling using LSTM networks and anomaly detection on sensor streams.
- Built real-time fraud detection framework with ensemble learning and risk score calibration.
- Developed dynamic pricing engine using reinforcement learning and contextual decision policies.
- Created NLP workflows for automated ticket routing, categorization, and summarization using transformer models.
- Designed feature stores and reusable preprocessing layers for consistent offline and online model behavior.
- Implemented Kafka and Spark streaming inference pipelines for near real-time scoring.
- Conducted model experimentation with cross-validation, Bayesian optimization, and error slicing.
- Built active learning loops with annotation teams to improve supervised model iteration speed.
- Containerized model services and integrated CI/CD workflows for automated deployment.
- Developed business-facing dashboards to communicate model health and outcomes.
- Provided technical leadership during production incidents and shipped corrective fixes.

Technologies: Python, LSTM, ensemble learning, reinforcement learning, transformer-based NLP models, Kafka, Spark, CI/CD, containerization

Machine Learning Engineer - ModelOp (NLP Pipelines, Customer Churn Models, Deep Learning Sentiment Analysis, OCR, and Recommendation Systems)

Duration: January 2018 - April 2020

Summary: Engineered NLP pipelines for various text data, developed customer churn and propensity models, implemented deep learning solutions for sentiment and intent recognition, created OCR and document understanding workflows, and built recommendation algorithms for content and product ranking.

Responsibilities:

- Developed NLP pipelines using embeddings, topic modeling, NER, and text classification.
- Built customer churn and propensity models with gradient boosting and logistic regression.
- Implemented deep learning models for sentiment analysis and intent recognition.
- Created OCR and document understanding workflows combining image preprocessing and ML-based field interpretation.
- Developed recommendation algorithms using collaborative filtering and similarity search.
- Automated training pipelines with Airflow and Python for scheduled execution.
- Built Flask APIs to expose model predictions to internal products.
- Conducted exploratory data analysis and user segmentation using clustering and dimensionality reduction.
- Collaborated on experiment design and model evaluation against baselines.
- Documented model assumptions and deployment dependencies for maintainability.

Technologies: Python, embeddings, topic modeling, NER, gradient boosting, logistic regression, recurrent networks, transformers, OCR, Airflow, Flask

Junior AI Engineer - 3Cloud (Computer Vision Prototypes and Baseline Models)

Duration: July 2016 - December 2017

Summary: Supported early computer vision prototype development for automated quality inspection, implemented baseline machine learning models, and contributed to anomaly detection workflows and integration of inference outputs into applications.

Responsibilities:

- Prepared labeled image datasets and tuned OpenCV preprocessing for computer vision prototypes.
- Built Python scripts for data cleaning and feature extraction.
- Implemented baseline models including logistic regression, decision trees, random forests, and SVMs.
- Assisted with TensorFlow and Keras training workflows and model comparisons.
- Contributed to anomaly detection workflows analyzing sensor and log data.
- Collaborated with software engineers to integrate inference outputs into web applications.
- Created internal dashboards for model evaluation metrics and data quality.
- Helped package prototype solutions into reproducible environments.
- Participated in model debugging and post-test reviews.
- Contributed to documentation and client-facing technical explanations.



Technologies: Python, OpenCV, TensorFlow, Keras, logistic regression, decision trees, random forests, SVMs, virtual environments, Git

EDUCATION

- **Bachelor of Science in Computer Science**

Completed coursework in software engineering, artificial intelligence, database systems, algorithms, data structures, distributed systems, and applied statistics. Designed a capstone recommendation platform combining collaborative filtering, user behavior analytics, and a Flask-based web interface. Built academic projects in Python, Java, SQL, and JavaScript. Developed an image classification project using convolutional neural networks. Worked on team-based projects using Git and agile practices.

January 2012 - January 2016

