

NICK HENDERSON

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Machine Learning Engineer with 5+ years building production ML systems. Specialized in LLM applications, having led modeling for Nike's AI copywriting platform that increased productivity by 8x

PROFESSIONAL EXPERIENCE

Nike

Machine Learning Engineer

Beaverton, OR
Apr 2024 | Present

- Designed and implemented the core modeling capabilities for an LLM-powered copywriting application, increasing copywriter output by 8x
- Boosted generation accuracy by 45% and significantly improved LLM generalization by creating a dynamic few-shot learning system using semantic similarity
- Built extraction and RAG pipeline to process and retrieve 1000+ PowerPoint decks using PyMuPDF and OpenSearch
- Developed prompt construction framework for integrating company style guide requirements into Claude prompts and evaluating outputs, ensuring consistent compliance across AI-generated content
- Architected dynamic rules engine that automatically incorporated copywriter feedback based on product attributes, allowing for rapid feedback implementation in 1-2 days with zero code change
- Built scalable technical architecture and established development patterns that supported team expansion as a founding member
- Presented GenAI modeling approaches to executive leadership, led cross-functional partnerships, and conducted technical interviews and mentoring for new hires

Software Engineer

Sep 2021 | Apr 2024

- Built PySpark pipeline processing 1B+ rows monthly of customer clickstream and retail transaction data to power an ALS recommendation model
- Implemented data and training/inference infrastructure for a social media topic detection model (BERT), deploying to production and scaling to 10,000+ posts per day
- Optimized end-to-end ML pipeline (data processing, hyperparameter tuning, training, promotion), reducing runtime and compute costs by 80%+ and eliminating recurring production failures
- Created a cluster resource utilization dashboard, saving over \$500k annually by identifying over-resourced jobs
- Documented comprehensive code lifecycle standards and deployed CI/CD pipelines in Jenkins, Airflow

Software Engineering Intern

Jun 2020 | Aug 2020

- Integrated pose estimation model into augmented reality mobile application using Javascript, C++
- Wrote linear algebra functions to replace Tensorflow and NumPy dependencies

Oregon Networking Research Group

Undergraduate Researcher

Eugene, OR
Jan 2020 | Jun 2020

- Trained multi-task machine learning models to classify internet measurements and tested their effectiveness against single-task models, using PyTorch and Snorkel

Cisco

Sales Engineering Intern

San Jose, CA
Jun 2019 | Aug 2019

AMN Healthcare

Software Engineering Intern

San Diego, CA
Jun 2018 | Sep 2018

EDUCATION

University of Oregon

BS Computer and Information Science

Eugene, OR
Sep 2017 - Jun 2021

SKILLS

Languages: Python, Spark SQL, C++
LLM/GenAI: LangChain, Claude, RAG, Prompt Engineering
ML Frameworks: PyTorch, Transformers, MLFlow
Data/MLOps: PySpark, Pandas, NumPy, Pinecone, Airflow, Jenkins
Cloud/Platforms: Databricks, AWS (SageMaker, S3, Bedrock), Docker