

Ediz Ertekin Jr.

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EDUCATION

University of California, Berkeley

Dec 2024

B.A. Computer Science, Minor Data Science

- **Coursework:** Data Structures & Algorithms, Foundations of Data Science, Principles & Techniques of Data Science, Data Ethics, Discrete Mathematics and Probability, Efficient Algorithms, Optimization Models, Machine Learning, Computer Security, Operating Systems & System Programming, Computer Vision
- **Clubs:** Mobile Developers Of Berkeley (MDB), Neurotech @ Berkeley (NT@B)

PROFESSIONAL EXPERIENCE

Contract MLOps Engineer, Sensigo - Porsche Venture

Dec 2024 – Feb 2025 | San Mateo, CA

- Developed and deployed a KNN-based classifier using scikit-learn and FAISS architectures, created an git model artifact and leveraged AWS Sagemaker for deployment and AWS Athena for data querying and preprocessing
- Architected robust MLOps pipeline using DVC and GitHub Actions, implementing dynamic model versioning, automated deployments, and containerized training workflows on AWS ECR, resulting in 60% reduction in failed integration tests.

Undergraduate ML Researcher, Holistic AI

Apr 2024 – Feb 2025 | London, UK

- Designed and experimented with fine-tuning a pretrained BERT model on the MentalManip dataset for manipulative context detection in natural language, leveraging PyTorch DDP for distributed training and LIME/SHAP for interpretability
- Conducted research on mitigating gender hiring biases in Large Language Models (LLMs) used for resume scoring
- Developed a benchmarking framework to evaluate gender biases like Level, Spread, and Statistical bias using anonymized resume data
- Analyzed data across 10 LLMs, identifying male biases in certain industries and created visualizations to highlight bias patterns, aiding interpretation

Software Engineering Intern, Harness io

May 2024 – Aug 2024 | Mountain View, CA

- Designed a Harness marketplace MVP, creating a Command Line Interface (CLI) to streamline the generation of custom plugins, improving customer experience and workflow efficiency by 30%
- Built a data platform by implementing Apache Kafka for seamless connectivity between MongoDB and AlloyDB
- Leveraged PostgreSQL and SQLMesh for real-time data filtering, and deployed a CI/CD pipeline using a Cube API semantic layer

Machine Learning Researcher, Nexa Speech

Jan 2024 – May 2024 | Berkeley, CA

- Contributed to the development of a machine learning system for multi-agent conversations, leveraging Mixtral's open source LLM mixtral 8x7b, OpenAI Whisper, FastAPI, and ElevenLabs to build a robust speech-to-speech pipeline
- Performed Retrieved-Augmented Generation (RAG) and hybrid search with NVIDIA NeMo Guardrails for improved quality output
- Architected a user conversation storage system using Redis for caching and MongoDB for long-term storage
- Presented my work at the Data Science Discovery Program Symposium (<https://tinyurl.com/4mztezvt> 📄)

Software Engineering Intern, Snaplogic

May 2023 – Aug 2023 | San Mateo, CA

- Developed a new library for SnapGPT, an AI-powered platform for automating data integration pipelines across cloud data warehouses, leveraging NLP practices and a RAG infrastructure
- Engineered a module to support premium integrations, enhancing the platform's capabilities for complex scenarios
- Developed algorithms for seamless data migration across cloud solutions, optimizing efficiency, and reliability
- Implemented tests for validation efforts to ensure accuracy and stability of integration pipelines, driving platform

PROJECTS

MNIST: CNN & Diffusion Model

Nov 2024

- Employed a series of deep learning architectures for MNIST digit recognition, achieving > 97.5% accuracy on test set
- 98.7% test accuracy using CNN with U-Net architecture, max-pooling, batch normalization, and dropout for regularization

PUBLICATIONS

JobFair: A Framework for Benchmarking Gender Hiring Bias in Large Language Models

(Co-author). EMNLP 2024 Findings Paper (<https://arxiv.org/abs/2406.15484> 📄)

SAGED: A Holistic and Hand-Modulable Bias-Benchmarking Pipeline for Language Models

(Co-author). COLING 2025 Main Conference Paper (<https://arxiv.org/abs/2409.11149> 📄)

SKILLS

Machine Learning: PyTorch, TensorFlow, OpenCV, CUDA, Weights & Biases, Scikit-learn, Pandas, Sagemaker, Hugging Face

Languages & Tools: C++, Python, Go, Java, Rust, Bash, SQL, Git, AWS, REST API, Swift, React Native, Javascript, Docker, Kubernetes