Daniel J. Molinaro
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Summary

Accomplished Artificial Intelligence Researcher with over five years of experience in software engineering and a proven track record of delivering high-quality results. Expert in supervised fine-tuning (SFT) and reinforcement learning from human feedback (RLHF) for language models (LLMs) and foundation models, with strong problem-solving skills and proficiency in Python, Java, TensorFlow, and PyTorch. Seeking opportunities in AI research, leveraging a strong foundation in NLP, LLM architectures, Machine Learning/Deep Learning, and cloud-based solutions.

Professional Experience

Artificial Intelligence Researcher; January 2024 - present
Outlier, New York, NY
Specialized in fine-tuning LLMs such as Transformers and BERT for deployment and optimization
Evaluated responses based on quality, relevance, detail, specificity, safety, and functionality
Wrote complex and innovated prompts based on code understand, code generation, or code debugging
Experience with NLP libraries spaCy, NLTK and frameworks TensorFlow, PyTorch, Hugging Face Transformers
Implemented LLM optimization algorithms (Adam, SGD) and metrics for evaluating the performance of LLMs
SFT and RLHF for models like Gemini and ChatGPT, enhancing AI response quality.

Founder; January 2022 – April 2024
Med3 Technology Inc., New York, NY
Developed full-stack mobile & web applications utilizing React Native, NextJS, Spring Boot & MongoDB
Established AWS load balancers and auto-scaling groups to enhance microservice scalability and reliability
Identified risk & resiliency, vulnerability and failover by implementing WAF, 7-layer security, and OWASP risks
Containerized applications with Docker for dependency management and linux deployments
Automated CI/CD processes using GitHub webhooks , AWS Pipeline and Maven for seamless code deployment
Conducted performance & stress tests with Postman UI & integrated OpenAI ChatGPT API for in-app chatbot

Software Engineer; October 2021 - December 2021
J.P. Morgan Chase & Co., Plano, TX
Consumer Banking

Software Engineer; September 2019- October 2021
Infosys Ltd, Dallas, TX
Verizon Business
Worked in agile environments, coordinating with management and tech leads to deliver efficient solutions
Migrate on-premises applications to Oracle Cloud Linux servers using WinSCP and SFTP
Resolved server deployment issues by analyzing log files and managing Linux server operations
Tested SOAP services with SOAPUI, employing JBoss Wildfly, shell scripts, and Apache Ant for robust deployment

Software Engineer; May 2019 - September 2019
Revature, LLC, New York, NY
Designed RESTful APIs and developed backend solutions using Java, JavaScript, and AWS technologies
Managed AWS EC2 instances and Oracle RDS databases, ensuring high availability and performance

Quantitative Developer & Researcher; March 2016 – May 2019
Self Employed, New York, NY
Developed trading & backtesting algorithms using Alpaca API for trade entry and exit signals for over 2000 stocks
Monitored risk through maintenance margin requirements and implied volatility, grossing 50% return

Adjunct Professor; Spring Semester 2016
The City College of New York, New York, NY
Taught Engineering Dynamics as a course instructor, delivering comprehensive lectures and assessments

Researcher; Spring Semester 2016
American Society of Civil Engineers (ASCE), New York, NY
Reviewed and contributed to the ASCE Bridge Journal, enhancing the quality of scholarly publications

Education

The Cooper Union, New York, NY; 2014-2015
Master of Engineering (ME), Civil Engineering

The Cooper Union, New York, NY; 2009-2013
Bachelor of Engineering (BE), Civil Engineering

Certifications

Engineer in Training, EIT; April 2013
National Council of Examiners for Engineering and Surveying (NCEES)

Skills

Languages & Technologies: *Python, Java, JavaScript, C++, SQL, HTML, CSS, TypeScript, ReactJS, NextJS, Spring Boot, MongoDB, OracleDB, RESTful API, SOAP*
AI & Machine Learning: *LLMs, NLP (spaCy, NLTK), TensorFlow, PyTorch, Hugging Face Transformers*
Cloud & DevOps: *AWS, Git, GitHub, CI/CD, Linux, Docker, Oracle Cloud*
Quantitative Analysis: *Statistics, Probability, Calculus, Research, Algorithms, Data Structures*
Soft Skills: *Strong communication, assertive, high-achieving, problem-solving, interpersonal skills*

Honors & Awards

Full-Tuition Scholarship, 2009
The Cooper Union for the Advancement of Science and Art

Half-Tuition Scholarship, 2009
Cornell University

Publications

Earthquake ground motion selection for the non-linear response-history analysis and collapse-level assessment of multi-modal structures, 2015
School of Engineering theses, RG.011. The Cooper Union Archives & Special Collections · Jun 1, 2015
https://archives.cooper.edu/repositories/2/archival_objects/4983