EMRE ONAL

New York, NY @ emre.onal@columbia.edu ☎ +1 (640)-203-2921 ✆ github.com/emreonal11 in linkedin.com/in/emreonal11/

EDUCATION

COLUMBIA UNIVERSITY

MS in Computer Science | 📅 Expected December 2024 | 📍 New York, NY

- **Track:** Machine Learning
- **GPA:** 3.96/4.00

PRINCETON UNIVERSITY

BSE in Operations Research and Financial Engineering | 📅 May 2023 | 📍 Princeton, NJ

- **Minors:** Statistics & Machine Learning, Applications of Computing
- **GPA:** 3.96/4.00
- **Honors/Awards:** *Summa cum laude*, Ahmet S. Çakmak Prize for Innovative Research, Shapiro Prize for Academic Excellence, Sigma Xi Scientific Research Society, Tau Beta Pi & Phi Beta Kappa Honor Societies, Research Science Institute Scholar (RSI 2018)

TECHNICAL SKILLS

General: Statistics, Probability, Data science, Optimization, Algorithms & Data structures
Programming: Python, Java, C/C++/C#, Latex, Git/Mercurial, Linux, SQL
Machine Learning: Cloud Computing, High-performance computing, Pytorch, Keras, Scikit-Learn, Numpy, Pandas, MatPlotLib

EXPERIENCE

PRIMER AI

Machine Learning Research Intern | 📅 June 2024 - Present | 📍 San Francisco, CA

- Developing a pipeline to enable reliable processing and indexing of PDFs with both unstructured text and semi-structured contents (e.g. inline figures and tables).
- My goal is to enable semantic search and subsequent reasoning over inline semi-structured content within complex PDF documents.

HELMHOLTZ AI

Machine Learning Researcher | 📅 August 2023 - March 2024 | 📍 Munich, Germany

- Led a research project exploring the incorporation of approximate Bayesian inference into the low-rank adaptation of large language models via Gaussian stochastic weight averaging.
- Demonstrated this approach's ability to improve model calibration and generalization (competitively with more complex/expensive approaches for Bayesian LLMs) across several NLP benchmarks.

META

Applied Research Scientist Intern | 📅 May 2022 - August 2022 | 📍 Menlo Park, CA

- Researched, implemented and evaluated variations of a novel gated attention mechanism in a graph neural network for learning dense ad representations to be used in ads ranking.
- Collaborated with the Graph Learning team in Core Data Science and the Model Understanding team in Auction & Delivery to implement, interpret and iteratively improve my model.
- Achieved a significant improvement in Facebook ad-click prediction performance over the pre-existing method.

CENTER FOR ADVANCED SYSTEMS UNDERSTANDING

Machine Learning Research Intern | 📅 June 2021 - September 2021 | 📍 Görlitz, Germany

- Researched, implemented and evaluated a novel adversarially-trained system for unsupervised multimodal image registration.
- Jointly trained two task-specific residual U-nets for independently translating image modality and correcting image misalignment.
- Evaluated the system comprised of these two networks in cross-modality image registration with multiple proprietary datasets.

PRINCETON UNIVERSITY - COMPUTER SCIENCE DEPARTMENT

Undergraduate Teaching Assistant and Grader | 📅 September 2020 - December 2022 | 📍 Princeton, NJ

COS226: Data Structures and Algorithms & COS324: Introduction to Machine Learning

- Hosted weekly office hours to help students learn and apply course concepts.
- Advised students on their independent work research.
- Graded students' assignments and tested exam difficulty for the instructors.