

Ganesh Murugappan

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EDUCATION

Georgia Institute of Technology
Master of Science in Computer Science
Specialization: Machine Learning

Atlanta, GA
Aug 2023 – May 2024 (expected)

Georgia Institute of Technology
Bachelor of Science in Computer Science, Minor in Economics
Specializations: Artificial Intelligence, Theory

Atlanta, GA
Aug 2020 – May 2023

EXPERIENCE

Georgia Institute of Technology

Research Assistant

Atlanta, GA
Aug 2020 – Present

- Explore multiagent debate among vision-language models under Prof. Chao Zhang
- Co-authored sign language recognition [paper](#) (published at CHI 2021) under Prof. Thad Starner

Teaching Assistant

Aug 2022 – Present

- Write and grade homework and exam questions for 650 students in CS 3600: Artificial Intelligence
- Taught machine learning techniques and applications to 700 students in CS 4641/7641: Machine Learning

Susquehanna International Group

Quantitative Trading Intern

Bala Cynwyd, PA
June 2023 – Aug 2023

- Implemented statistical NLP model on index volatility desk to automatically extract signals from reports
- Applied options theory and decision science in classroom setting through mock trading and games

Meta

Software Engineer Intern

Menlo Park, CA
May 2022 – Aug 2022

- Implemented duplicate candidate detection on Recruiting Machine Learning and Data team
- Developed live ML model to identify and merge 400K duplicates out of 14M total candidates in recruiting system

Amazon

Software Development Engineer Intern

Sunnyvale, CA
May 2021 – July 2021

- Designed and executed back-end project modifying how information is sent to and displayed on the Alexa app

PROJECTS

Mixture of Experts Scheduling – *Apr 2024*: Residency-aware expert scheduling technique to improve inference latency of mixture of experts models, considering both performance and speed.

Machine Thinking, Fast and Slow – *May 2023*: Designed neural network architecture based on Daniel Kahneman's System 1 and System 2. Resulted in 25% faster inference time with only 0.8% drop in performance.

Bidirectionally Decoding Translator – *May 2023*: Novel sequence-to-sequence architecture with left-to-right and right-to-left decoding. Demonstrated improvement relative to unidirectional decoding on English-to-German translation.

Machine Translation Quality Estimation – *May 2022*: Transfer learning with multilingual-BERT-based estimator for machine translation quality estimation. Achieved 0.39 Pearson coefficient on MLQE dataset.

ACTIVITIES

Chess, National Master

Jan 2010 – Present

- Ranked within top 40 for age group in United States for seven years, winning state and national titles
- Earned National Master title, awarded by United States Chess Federation to less than 1% of rated players

The Agency, President

Aug 2020 – May 2023

- Serve as President for Georgia Tech's AI/ML club, largest club in College of Computing with over 100 members
- Give lectures on topics including neural networks, natural language processing, and reinforcement learning

SKILLS

Awards: 1st Place in 2021 CHI Student Research Competition, AIME Qualifier, Eagle Scout

Programming: Python, Java, PyTorch, NumPy, Git, Deep Learning, Data Analysis

Interests: Running, Mathematics, Board Games, Behavioral Economics