MADISON G. THANTU

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EDUCATION

Columbia University   *Expected December 2023*
 M.S. in Computer Science, Machine Learning track • GPA: 3.82/4.0
Award: Lustgarten-Whitney Family Fellowship, 2021-2023: Awarded by Columbia University's Department of
 Computer Science for recipient's academic potential for success in computer science
Relevant Coursework: Applied Machine Learning, Advanced Software Engineering, Artificial Intelligence,
 Computer Vision (*IP*), Natural Language Processing (*IP*), Introduction to Databases (*IP*)

University of California, Los Angeles | Honors College   *March 2021*
 B.S. in Cognitive Science, Specialization in Computing • GPA: 3.95/4.0
 B.A. in Human Biology & Society, with Departmental Highest Honors Awarded • GPA: 3.97/4.0

PROFESSIONAL EXPERIENCE

The Distributed Research Apprenticeships for Master's Program   *New York, NY*
Research Assistant   *September 2022 – Present*
- Under the guidance of Dr. Richard Zemel, implementing several recommender system (RS) models via different recommendation algorithms/strategies to simulate long-term user behavior and RS ecosystem dynamics.
- Conducting ongoing comparative analyses to investigate the interplay between RS metrics/dynamics, including accuracy, recommendation quality, user behavior homogeneity, and item fairness.
- Developing a website using Jekyll; authoring a final research paper to present research findings and implications.

Ford Motor Company   *Dearborn, MI (Remote)*
Product Development Intern   *May 2022 – August 2022*
- Developed a machine learning model to select representative high-frequency data cycles based on Connected Vehicle metadata to predict customers' vehicle charging behaviors and patterns, written in Python and HiveSQL.
- Performed data wrangling on over 50,000 unique vehicle identification numbers to train the above model, while simultaneously prioritizing efficiency and flexibility in algorithmic design and implementation.

Fox Uncertainty Lab   *Los Angeles, CA*
Project Manager   *January 2021 – August 2021*
- Managed a team of undergraduate students; executed an audit of news outlets' use of visual representations to display wealth distribution and how these representations perpetuate bias in viewers' perceptions of inequality.
Research Assistant   *June 2020 – August 2021*
- Conducted research on decision-making and behavioral economics: the primary investigation examined the effect of incentives on worker performance; administered the study to and collected data from 1,600 participants.

UCLA Academic Advancement Program   *Los Angeles, CA*
Peer Learning Facilitator   *March 2020 – June 2021*
- Tutored and academically coached ~15 undergraduate students/semester in an introductory programming course.
- Hosted weekly tutoring sessions and quarterly exam review sessions to facilitate mastery of course material.

TECHNICAL SKILLS

Languages: Python (*Prof.*), Java (*Prof.*), C++/C (*Inter.*), MATLAB (*Inter.*), SQL (*Beg.*), HTML/CSS (*Beg.*)
Concepts: Machine Learning – scikit-learn (*Prof.*), TensorFlow (*Inter.*); Reinforcement Learning
Tools: VS Code, XCode, GitHub, Vim, Anaconda, Spring Boot, Maven, Adobe Premiere & Photoshop

PROJECT EXPERIENCE

MusicTonic API   *Course:* Advanced Software Engineering (*Fall 2022*)
- In a team of 4, implemented the MusicTonic API, a music streaming platform management and database service using Java, Spring Boot and Maven; performed unit and integration testing using JUnit, Mockito, and Postman.
Medical Image Prediction Model   *Course:* Applied Machine Learning (*Fall 2022*)
- In a team of 5, implemented statistical and neural network models to perform medical image prediction using the CheXpert dataset; performed data visualization and pre- and post-processing; authored a final research report.