Nusret Efe Ucer

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EDUCATION

The University of Chicago

Chicago, IL

Bachelor of Science in Computer Science

expected June 2028

Relevant Coursework: Multiscale Modeling of Biological Systems

Robert College

Istanbul, Turkey

Diploma, Graduation June 2024

GPA: 4.0/4.0 High Honors (2020-2024)

EXPERIENCE AND PROJECTS

UChicago Polarization-modUlated Laser Sattelite Experiment (PULSE-A)

Chicago, IL

Ground Station Software Engineer

October 2024 – Present

- Developed the Ground Station (GS) communication systems for PULSE-A running on Linux using Python, ensuring fast and effective communication among GS systems and with the payload
- Collaborated with Optical and Radio Frequency Ground Stations to facilitate interfacing between the two

Technische Universität Dortmund

Dortmund, Germany

Research Assistant

July 2023 – September 2023

- Developed an AI tool using Google's mediapipe that tracks body movements of tennis players using footage; compares their movements such as the serve, forehand, and backhand to professional players' footage using joint positioning; and provides feedback frame by frame working with Dr. Andriy Sokolov
- Presented my work for the Technische Universität Dortmund in November upon invitation

Koc University Research Program

Istanbul, Turkey

Research Assistant

July 2022 – October 202

- Investigated Automatic Learning of Procedural Language from Instructions, analyzed literature, tested state-of-the-art ML methods and LLM models on procedural data, reported progress to an undergraduate committee
- Organized and evaluated mass procedural data such as WikiHow, Microsoft Research Multimodal Aligned Recipe Corpus, and doityourself

ERKA Istanbul, Turkey

Research and Development Assistant

August 2022 – September 2022

- Concentrated on autonomous missing data filling and inference, testing and building AI and ML models to find solutions to the missing data entries on Turkish Airlines Holidays database
- Prepared and presented a report to superior on possible solutions and approaches

Leadership & Activities

UChicago Association for Computer Machinery

Chicago, IL

Member

Member

October 2024 – Present

October 2024 - Present

Tested open-sourced LLM alternatives, investigated prompt engineering, and examined hyperparameter tuning

AI@UChicago

Chicago, IL

• Attended weekly lectures on AI and LLMs, strengthened mathematical and technical foundations

Robert College International MUN

Istanbul, Turkey

Student Officer - Deputy Secretary General

September 2020 - July 2024

• Co-organized an international conference hosting over 600 people, managing a budget over \$40,000 including sponsorships, attended numerous other conferences as a student officer, helping and leading lowerclassmen

Kadir Has University

Istanbul, Turkey

Teaching Assistant

January 2024 – February 2024

• Assisted Emeritus Professor of Physics Dr. Nihat Berker in his "Augmented Mechanics" course, held virtual office hours for 100+ students, tutored, checked homework, and graded exams

SKILLS

Programming Languages: ELK, Python, C, Java, R, HTML, CSS, JavaScript, Node, Nest, SQL, Tkl

Languages: English, Turkish, German