

Curriculum Vitae

Kutay Tire

Austin, USA

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ABOUT

I am a first-year Ph.D. student in Electrical and Computer Engineering at the University of Texas at Austin. I earned a B.Sc. in Computer Engineering and Physics as a double major from Bilkent University. My research interests center on the applications and theoretical foundations of deep learning, time-series analysis, LLMs, and optimization.

EDUCATION

University of Texas at Austin, Austin, Texas
Ph.D. in Electrical and Computer Engineering
Advisors: Prof. Sujay Sanghavi and Prof. Haris Vikalo

September 2025 — June 2030
Cumulative GPA: N/A

Bilkent University, Ankara, Turkey
B.S. in Computer Engineering

September 2020 — June 2025
Cumulative GPA: 3.95/4.00

Bilkent University, Ankara, Turkey
B.S. in Physics (Valedictorian)

September 2021 — June 2025
Cumulative GPA: 3.96/4.00

PUBLICATIONS

- E. O. Taga, H. A. Gozeten, **K. Tire**, R. Dalvi, R. Heckel, and S. Oymak, “Filter, Augment, Forecast: Online Data Selection for Robust Time Series Forecasting,” *ICML 2025 Workshop on Foundation Models for Sequential Data (FMSD)*, 2025.
- **K. Tire**, E. O. Taga, M. E. Ildiz, and S. Oymak, “Retrieval-Augmented Time Series Forecasting,” *AAAI-25 Workshop on AI for Time Series Analysis (AI4TS)*, 2025. Available: <https://doi.org/10.48550/arXiv.2411.08249>
- **K. Tire**, B. Cakar, and E. Tuzun, “Evaluating the Impact of Data Cleaning on the Quality of Generated Pull Request Descriptions,” *arXiv preprint arXiv:2505.01120*, 2025. Available: <https://arxiv.org/abs/2505.01120>

ACADEMIC EXPERIENCE

University of Texas at Austin
Graduate Researcher

Austin, USA
August 2025 — Present

- **Supervisor:** Prof. Sujay Sanghavi and Prof. Haris Vikalo

University of Michigan
Research Intern

Ann Arbor, USA
June 2024 — Present

- Working on a covariance-aware tokenization strategy for time-series transformers with theoretical guarantees on solving constrained quadratic programmes.
- Investigated and demonstrated the positive effect of RAG (Retrieval-augmented Generation) in the time series domain.
- **Supervisor:** Prof. Samet Oymak

BILSEN
Undergraduate Researcher

Ankara, Turkey
September 2023 — June 2024

- Conducted a comprehensive analysis of the impact of data cleaning on the performance of transformer-based models, such as T5 and BART, for automatic pull request description generation.
- **Supervisor:** Prof. Eray Tüzün

University of Cambridge
Summer Research Intern

Cambridge, UK
June 2023 — September 2023

- Developed Neural-MLS, a novel deep learning approach on point clouds, to acquire weights, which are then utilized in mesh construction through Implicit Moving Least Squares (IMLS).
- **Supervisor:** Prof. Cengiz Öztireli

HONORS AND AWARDS

- **ECE Departmental Fellowship** at the University of Texas at Austin 2025
- **Valedictorian** of the Physics cohort at Bilkent University 2025
- **Productivity Award** for senior design project at the CS Fair at Bilkent University 2024
- **High Honor Student** at Bilkent University, maintained a GPA of 3.5 or higher each semester 2020–2025
- **Tuition Scholarship** at Bilkent University, awarded for success in the University Entrance Exam 2020
- **Valedictorian** of TED Ankara College Private High School, graduating with a CGPA of 99.15 2020
- **Valedictorian** of TED Ankara College Private Middle School, graduating with a CGPA of 98.53 2016

PROJECTS

- **PieR:** PieR is a software analytics project that leverages AI and Machine Learning for pull request classification. For a specific repository, the project analyzes incoming pull requests to classify them into categories. This project was developed as a senior project and received the **Productivity Award**. I served as the Head of ML.
- **Career Bridge:** A LinkedIn-like web application designed to connect professionals with job opportunities. This application was developed for the CS353 - Database Systems course at Bilkent University. I created the backend using Python FastAPI and contributed to the database management of the project.
- **Erasmus Manager (ERSMS):** This project aimed to eliminate paperwork and streamline the work of exchange coordinators and students by moving the entire Erasmus process to a web-based digital platform. I developed the front-end using AngularJS as part of the CS319 - Object-Oriented Programming course. Designed for use by students and coordinators at Bilkent University, the project was selected as the best among 25 other projects.

OTHER EXPERIENCES

IBM Qiskit Global Summer School

Summer School Participant

Online

July 2023 — August 2023

- Attended Qiskit Global Summer School. The program included 3 hours of lectures and 2 hours of lab assignments covering topics such as Quantum Algorithms (Grover, Deutsch-Josza, Quantum Fourier Transform), Quantum Teleportation, Error Mitigation. Completed lab assignments successfully and earned Quantum Excellence Certificate.

SNG Studios

Undergraduate Intern

Ankara, Turkey

August 2022 — September 2022

- Developed an interactive graph visualization of user data utilizing the NetworkX library. Performed data analysis using machine learning algorithms from the Scikit-learn library.

SKILLS

Technical Skills	C, C++, Python, PyTorch, Java, SystemVerilog, MATLAB, MySQL, Qiskit
Soft Skills	Critical Thinking, Problem-Solving, Creativity, Effective Communication
Language Skills	Turkish (Native), English (Fluent), German (Intermediate)

SELECTED COURSES

Computer Science Courses

- Statistical Learning and Data Analytics
- Deep Generative Networks
- Introduction to Machine Learning
- Algorithms
- Basics of Signals and Systems

Physics Courses

- Topics in Quantum Information
- Theory of General Relativity
- Numerical Methods in Physics
- Advanced Calculus for Applications in Physics
- Quantum Mechanics

ENGLISH TESTS

TOEFL iBT: 114 (overall score) — Listening: 28 — Reading: 28 — Speaking: 29 — Writing: 29 — Test date: June 2024

EXTRA-CURRICULAR ACTIVITIES

- Member of General Assembly in Bilkent Chess Club. Regularly organized chess tournaments every 2 weeks to entertain the students.