Samet Tenekeci

Izmir Institute of Technology, Turkey
samettenekeci@gmail.com

Summary

I hold a PhD in Computer Engineering specializing in AI-driven predictive modeling for high-dimensional, heterogeneous data. My research centers on multimodal representation learning, graph neural networks, and domain-adapted language models, with applications in computational biology, health-related data, and software systems. I have authored peer-reviewed journal articles, taught core computer engineering courses, supervised students, organized workshops, and contributed to international research projects.

Education

PhD, Computer Engineering 2019 – 2025
Izmir Institute of Technology
Thesis: Modeling Viral Evolution with Natural Language Processing

MSc, Computer Engineering 2016 – 2019
Dokuz Eylül University
Thesis: Discovering Disease-Causing Genes by Network Analysis

BSc, Computer Engineering 2009 – 2014
Izmir University

Professional Experience

Lecturer 06/2025 – Present
Izmir Institute of Technology

- Teaching undergraduate and graduate courses
- Supervising graduation projects and mentoring students
- Conducting research in Software Engineering & AI Research Group

Research Assistant 07/2018 – 06/2025
Izmir Institute of Technology

- Assisted in teaching more than 10 computer science courses
- Contributed to several projects in Data Analytics Research Group
- Led administrative tasks within the department as the RA coordinator
- Contributed to the organization of academic conferences and workshops

Software Engineer 02/2017 – 05/2018
Airties Wireless Networks

- Developed client-specific firmware features for wireless access points
- Resolved large-scale overheating issues in production

Teaching Assistant 11/2014 – 08/2016
Izmir University

- Assisted in teaching and grading core computer science courses
- Conducted laboratory sessions for undergraduate courses
- Contributed to administrative tasks within the department

Publications

1. Tenekeci S, Sezgin E, Tekir S. **A contrastive learning framework for efficient viral escape prediction**. *IEEE Transactions on Computational Biology and Bioinformatics*, 2026.
2. Tenekeci S, Ünlü H, Keçeci B, İncir ME, Demirörs O. **Automated software size measurement using multilingual domain-adapted language models**. *Turkish Journal of Electrical Engineering and Computer Sciences*, 2026.
3. Ünlü H, Tenekeci S, Kennouche DE, Demirörs O. **Automating software size measurement with language models: Insights from industrial case studies**. *Journal of Systems and Software*, 2026.
4. Tenekeci S, Ünlü H, Gül BA, Keleş D, Küçük M, Demirörs O. **Automating software size measurement from Python code using language models**. *Automated Software Engineering*, 2025.
5. Tenekeci S, Tekir S. **Identifying promoter and enhancer sequences by graph convolutional networks**. *Computational Biology and Chemistry*, 2024.
6. Ünlü H, Tenekeci S, Çiftçi C, Oral İB, Atalay T, Hacaloğlu T, Musaoğlu B, Demirörs O. **Predicting software functional size using natural language processing: An exploratory case study**. *50th Euromicro Conference on Software Engineering and Advanced Applications*, Paris, France, 2024.
7. Tenekeci S, Ünlü H, Dikenelli E, Selçuk U, Kılınç Soylu G, Demirörs O. **Predicting software size and effort from code using natural language processing**. *IWSM & Mensura*, Montréal, Canada, 2024.
8. Tekir S, Güzel A, Tenekeci S, Haman BU. **Quote detection: A new task and dataset for NLP**. *7th Joint SIGHUM Workshop*, Dubrovnik, Croatia, 2023.
9. Sezerer E, Tenekeci S, Acar A, Baloğlu B, Tekir S. **Author reputation measurement on question and answer sites by the classification of author-generated content**. *International Journal on Artificial Intelligence Tools*, 2021.
10. Ünlü H, Tenekeci S, Yıldız A, Demirörs O. **Event oriented vs object oriented analysis for microservice architecture: An exploratory case study**. *47th Euromicro Conference on Software Engineering and Advanced Applications*, Palermo, Italy, 2021.
11. Çiftçi O, Tenekeci S, Ülgentürk C. **Artist recommendation based on association rule mining and community detection**. *13th International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management*, Valletta, Malta, 2021.
12. Tenekeci S, Işık Z. **Integrative biological network analysis to identify shared genes in metabolic disorders**. *IEEE Transactions on Computational Biology and Bioinformatics*, 2020.

Research Projects

MorphoMark 10/2025 – Present

- A deep learning–based tool trained on mesh and point cloud data for 3D facial landmark localization. It supports automated detection of anatomical reference points used for geometric measurements and skeletal classification in orthodontic and craniofacial analysis. I coordinate the research and development activities of PhD-, MSc-, and BSc-level students from the dentistry and computer engineering departments.

CoV-SNN 06/2023 – 06/2025

- A protein language model trained using contrastive learning on viral protein sequences, enabling computationally efficient viral escape prediction and zero-shot variant classification. I contributed to the project proposal and led the research and development activities. The project was funded by The Council of Higher Education (YÖK) and resulted in a software tool and a peer-reviewed journal article.

AI-Estimator 01/2023 – 01/2025

- A family of domain-adapted, task-specific language models for automated software analytics. The models support automated effort estimation from software requirements. I contributed to the project proposal and to the research and development efforts. The project was funded by The Scientific and Technological Research Council of Turkey (TÜBİTAK) and resulted in a software tool and multiple journal articles.

Skills

Research Areas:
Machine learning, natural language processing, multimodal data analysis, computational biology, bioinformatics, software analytics, high-performance computing (HPC)

Technical:
Python, PyTorch, TensorFlow, R, C, Git, Docker, Linux, SLURM, Hugging Face, Streamlit

Service and Community

- Organization Committee Member, IWSM Mensura Conference
- Contributor to national and international grant proposals including Horizon Europe
- Reviewer for Journal of Supercomputing and Knowledge and Information Systems
- Campus Advisor, GitHub
- Member, Data Analytics Research Group
- Member, Software Engineering & AI Research Group