

Burak Yetistiren

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EDUCATION

University of California, Los Angeles (UCLA)

Ph.D. in Computer Science

Los Angeles, CA, USA

September 2023 - Present

Bilkent University

B.Sc. in Computer Engineering

- Honors: *Cum Laude*

Ankara, Turkey

September 2018 - June 2022

Waseda University

Exchange Study

Tokyo, Japan

April 2021 - September 2021

Bilkent University

Minor in Philosophy

Ankara, Turkey

September 2020 - June 2022

PUBLICATIONS

1. **Burak Yetistiren**, Isik Ozsoy, and Eray Tuzun. 2022. Assessing the quality of GitHub copilot's code generation. In Proceedings of the 18th International Conference on Predictive Models and Data Analytics in Software Engineering (PROMISE 2022). Association for Computing Machinery, New York, NY, USA, 62–71. <https://doi.org/10.1145/3558489.3559072>
2. **Burak Yetistiren**, Işık Özsoy, Miray Ayerdem and Eray Tüzün. 2023. Evaluating the Code Quality of AI-Assisted Code Generation Tools: An Empirical Study on GitHub Copilot, Amazon CodeWhisperer, and ChatGPT. arXiv. <https://doi.org/10.48550/arXiv.2304.10778>

INVITED TALKS

1. "Assessing the Quality of GitHub Copilot's Code Generation", invited talk at Microsoft PROSE Team, January 18, 2023.

CONFERENCES ATTENDED

1. **ESEC/FSE '23**: The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering. San Francisco, CA, USA, December 2023.
2. **MAPS '23**: The 7th Annual Symposium on Machine Programming. San Francisco, CA, USA, December 2023.
3. **PROMISE '22**: 18th International Conference on Predictive Models and Data Analytics in Software Engineering. Singapore, Singapore, November 2022. (**paper presentation**)
4. **ESEC/FSE '22**: The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering. Singapore, Singapore, November 2022.

EXPERIENCE

Graduate Student Researcher

UCLA Samueli School Of Engineering, Department of Computer Science

September 2023 – Current

Los Angeles, CA, USA

- I am a Graduate Student Researcher at the Software Evolution and Analysis Laboratory (SEAL) directed by [Prof. Dr. Miryung Kim](#).

Undergraduate Researcher

Bilkent University Software Engineering and Data Analytics Research Group (BILSEN)

July 2021 – September 2023

Ankara, Turkey

- I worked under the supervision of Dr. Eray Tuzun. I performed an exploratory research study on code generation tools like GitHub Copilot, Amazon CodeWhisperer, and ChatGPT, in terms of accuracy and potential limitations. In that regard, our paper named "Assessing the Quality of GitHub Copilot's Code Generation" was accepted to appear in the "18th International Conference on Predictive Models and Data Analytics in Software Engineering (PROMISE '22)".
- I regularly reviewed the papers of other members in our lab to find any possible errors, inconsistencies, and points to improve before their submission.

Machine Learning & Computer Vision Intern

July 2021 – September 2021

ArgosAI Technology

Ankara, Turkey

- I trained a generative adversarial network with the images captured in one airport to generate images that can be used as training data for another airport. I utilized the “SPA-GAN: Spatial Attention GAN (Generative Adversarial Networks) for Image-to-Image Translation” architecture in my model.

Software Development Intern

June 2021 – July 2021

JotForm Inc.

Ankara, Turkey

- I worked with the React.js framework to create a web to-do-list application and another application to get information from submitted forms and show the submission information.

Machine Learning Intern

July 2020 – August 2020

Bilkent University

Ankara, Turkey

- I implemented a deep learning model, which predicts COVID-19 negative and positive cases with 70% precision using lung CT scans. I worked under the supervision of Prof. Dr. Cigdem Gunduz-Demir.

AWARDS

NSF Student Travel Award

December 2023

NSF

- Support to attend The 7th Annual Symposium on Machine Programming (MAPS) sponsored by NSF.

SIGSOFT CAPS Award

September 2022

ACM

- Support to attend the ESEC/FSE'22 and PROMISE'22 conferences sponsored by ACM SIGSOFT.

Honor Student (*Cum Laude*)

June 2022

Bilkent University

- I earned my B.Sc. in Computer Engineering degree with *Cum Laude* standing.

PROJECTS

Rhapso | *Technologies used: Java, Android Studio*

September 2021 – May 2022

- **Capstone Project**
- Online closet service
- Shopping suggestions considering already existing clothes of the user, suggesting environmentally sustainable alternatives.

Airline Customer Satisfaction Predictor | *Technologies used: Python*

February 2021 – May 2022

- Project for **EEE485, Statistical Learning and Data Analytics** course
- Implemented a system that predicts the customer satisfaction for given parameters like Gender, Customer Type, Age, etc.
- Used and compared ML Techniques: Principal Component Analysis, Naive Bayes, Neural Networks, Random Forests

Annexation Game | *Technologies used: Java, JavaFX*

September 2020 – December 2020

- Project for **CS319, Object Oriented Software Engineering** course
- Implemented classical RISK board game with new features.

Turna | *Technologies used: C*

September 2020 – November 2020

- Project for **CS315, Programming Languages** course
- Designed a programming language for drones.
- Implemented lexical analyzer and parser for the language.

SwapSwap | *Technologies used: Java*

February 2019 – May 2019

- Project for **CS102, Algorithms and Programming** course
- Allowed users to post their items and the tasks they can swap.

SKILLS AND ABILITIES

Natural Languages: Turkish (Native), English (*CEFR Level: C1, Full-Professional Proficiency*), German (*CEFR Level: C1, Professional Working Proficiency*), Japanese (Elementary)

Programming Languages: Python, Java, C++, JavaScript

Developer Tools: Git, GitHub, GitHub Copilot, OpenAI API

Applications: Visual Studio IDE, Android Studio, IntelliJ IDEA, PyCharm IDE, Microsoft Office, L^AT_EX

CERTIFICATES

TOEFL iBT English Proficiency Test

November 2021

ETS

- Reading: 28/30, Listening: 29/30, Speaking: 23/30, Writing: 28/30, Total: 108/120

German Language Proficiency Certificate

May 2018

Federal Office of Administration

- Level: C1

COMMUNITY & EXTRACURRICULAR ACTIVITIES

Grader

September 2021 – January 2022

Bilkent University

Ankara, Turkey

- Graded quizzes of mostly first-year students for the Introduction to Calculus (MATH101) course, which I have taken in my first year.

Volunteer

February 2019 – June 2019

Bilkent Social Awareness Projects (TDP)

Ankara, Turkey

- The Sun Rises from the Village Project (GUNKOY): Visited a village primary school in Tasova, Amasya, Turkey, to provide some schools needing a library by building one. Made some fun activities for the kids. Collected donations to be delivered to the village school before the visit.
- Railway Line Support Project (DHDP): Visited a village middle school in Dursunbey, Balıkesir, Turkey, to conduct science, arts, and sports activities. Informed the kids about the education opportunities they have for their future. I was the head of the periodic table team in this project. With my team, we collected supplies for a permanent periodic table construction for the science lab, and we constructed the table.

HOBBIES AND INTERESTS

Travelling: Visited USA, UK, Germany, France, Switzerland, Austria, Italy, Hungary, Tanzania, Kyrgyzstan, Thailand, China, Hong Kong, Japan, Malaysia, South Korea, Singapore, and my homeland Turkey.

Classical Music: I like to go to live classical music performances. Visit my YouTube channel to see some live performances I recorded.