

ALI REZA IBRAHIMZADA

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Thomas M. Siebel Center for Computer Science

201 North Goodwin Avenue \diamond Urbana, IL 61801, United States

EDUCATION

University of Illinois Urbana-Champaign, IL, USA Doctor of Philosophy Department of Computer Science	August 2022 - Present CGPA: X.XX/4.00
Marmara University, Istanbul, Turkey Bachelor of Science Department of Computer Engineering	June 2020 - July 2022 CGPA: 3.98/4.00
Istanbul Sehir University, Istanbul, Turkey Bachelor of Science Department of Computer Science and Engineering	August 2018 - June 2020 CGPA: 3.96/4.00
Khana-e-Noor, Mazar-e-Sharif, Afghanistan High School	March 2014 - January 2017 CGPA: 3.96/4.00

PUBLICATIONS

Please refer to my [Google Scholar](#) to check my publications.

Journal Publications

- J1.** Sohsah G., Ibrahimzada A. R., Ayaz H., & Cakmak A. (2020). Scalable Classification of Organisms into a Taxonomy Using Hierarchical Supervised Learners. *Journal of Bioinformatics and Computational Biology*. DOI: [10.1142/S0219720020500262](https://doi.org/10.1142/S0219720020500262)

Conference/Workshop Publications

- C1.** Ibrahimzada A. R., Varli Y., Tekinoglu D., & Jabbarvand R. (2022). Perfect Is the Enemy of Test Oracle. *The ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering*
- C2.** Cakmak A., Ibrahimzada A. R., Arikan S., Ayaz H., Demirkol S. et al. (2019). Predicting the Predisposition to Colorectal Cancer based on SNP Profiles of Immune Checkpoints Using Supervised Learning Models. *VII. International Molecular Medicine Congress*, 20-21. ([congress book](#)) ([full-text](#))

Manuscripts under review

- M1.** Ibrahimzada A. R., & Cakmak A. (2021). Predicting Student Grades in Courses: A Clustering-Based Approach. *IEEE Transactions on Learning Technologies*.
- M2.** Cakmak A., Ibrahimzada A. R., Arikan S., Ayaz H., Demirkol S. et al. (2021). Predicting the Predisposition to Colorectal Cancer based on SNP Profiles of Immune Phenotypes using Supervised Learning Models. *IEEE Journal of Biomedical and Health Informatics*.

RESEARCH EXPERIENCE

University of Illinois Urbana-Champaign, IL, USA **May 2021**
Research Assistant, Advisor: Dr. Reyhaneh Jabbarvand **- Present**

- *Software Engineering and Artificial Intelligence*: Design and implementation of deep learning techniques for software analysis and testing tasks.

Marmara University, Istanbul, Turkey **July 2021**
Research Student, Advisor: Dr. Mehmet Kadir Baran **- July 2022**

- *Artificial Intelligence*: Utilizing attention-based deep learning models for pixel-wise depth estimation. This project has been awarded The Best Senior Graduation Project of the Year.

Istanbul Technical University, Istanbul, Turkey **June 2020**
Research Assistant, Advisor: Dr. Ali Cakmak **- February 2022**

- *Machine Learning*: Design and development of a clustering-based framework for predicting student success, and extending the proposed framework with the novel statistical learning algorithms. The models were evaluated on a real life student-course dataset, and our proposed framework improved the state-of-the-art methods by nearly 36%.
- *Bioinformatics and Machine Learning*: Analyze SARS-Cov-2 mutation patterns in the virus genome using deep learning, and use the results to improve the production of future vaccines. *This is an ongoing research work.*

Istanbul Sehir University, Istanbul, Turkey **June 2019**
Research Assistant, Advisor: Dr. Ali Cakmak **- June 2020**

- *Bioinformatics and Machine Learning*: Design and development of a hierarchical-based framework for classification of living organisms. Moreover, development of a supervised learning model for predicting the predisposition to colorectal cancer based on SNP profiles of immune phenotypes. The proposed models improved the state-of-the-art methods both in terms of accuracy and f1-score.

TEACHING EXPERIENCE

Istanbul Sehir University, Istanbul, Turkey **September 2019**
Teaching Assistant **- June 2020**

Activities and Responsibilities: Preparing assignments, grading assignments, grading exams, holding practice sessions, and holding office hours.

- ENGR 101 (Introduction to Programming) in Fall 2019
- ENGR 102 (Programming Practice) in Spring 2020

SOFTWARE DEVELOPMENT EXPERIENCE

Please refer to my [GitHub](#) to check my projects.

Marmara University, Istanbul, Turkey

June 2020

Projects

- Present

- *Certificiency*: We designed and implemented an Event Management System which eases the process of event creation, event management, and issuing e-certificates to participants of an event. Certificiency is based on a peer-to-peer architecture and it is specifically built for big institutions.
- *Data Labeling System*: We designed and implemented a Data Labeling System for labeling instances of different datasets using Java. Users can load their datasets in a pre-defined format, and the application exports many useful metrics which helps in understanding the quality of labeled data.
- *Zoom Poll Analyzer*: We designed and implemented a Poll Analysis System for analyzing poll results of Zoom using Python. Users can load their student lists, answer keys and polls based on a pre-defined format. The application exports different statistics and reports ranging from attendance to clustering analysis for cheat detection.

Istanbul Sehir University, Istanbul, Turkey

August 2018

Projects

- June 2020

- *Smart Advisor*: An intelligent web-based agent which uses machine learning to help students predict their letter grades before registering to a course. Instructors can follow their advisees progress and view different statistics of the class. Students can rate their courses and instructors which affects later predictions.

HONORS AND AWARDS

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|---|---------------------|
| • Graduate School Scholarship for my PhD in Computer Science. University of Illinois Urbana-Champaign. | August 2022 |
| • The Best Senior Graduation Project of the Year. Department of Computer Engineering, Marmara University. | June 2022 |
| • Academic Achievement Scholarship, 100% scholarship in accordance with high GPA in 2019-2020, 2020-2021, and 2021-2022 academic years. Istanbul Sehir University & Marmara University. | July 2019 |
| • Valedictorian of graduating classes in high school. Khana-e-Noor Educational Network. | January 2017 |

ACTIVITIES

- Participant, Research Experience for Undergraduates (REU), Illinois, United States **May 2021**
- Team leader, 11th Afghanistan National Science Competition, Kabul, Afghanistan **September 2016**

TEST SCORES

TOEFL iBT (CEFR Level C1) **October 2021**
Education Testing Service (ETS) **- October 2023**

Reading	Listening	Speaking	Writing	Overall
23	27	26	27	103

LANGUAGES

- Persian - Native or bilingual proficiency
- Pashto - Native or bilingual proficiency
- English - Full professional proficiency
- Turkish - Professional working proficiency

FAVOURITE COURSES

- CSE 4088 - Introduction to Machine Learning
- CS 240 - Exploratory Data Analysis
- UNI 123 - Textual Analysis and Effective Communication
- ENGR 102 - Programming Practice
- CSE 3044 - Software Engineering