ALI REZA IBRAHIMZADA

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Marmara University RTE Campus

Sureyyapasa Basibuyuk Yolu ⋄ 34854, Maltepe, Istanbul, Turkey

EDUCATION

Marmara University, Istanbul, Turkey **June 2020 - Present**
Bachelor of Science CGPA: 3.98/4.00
Department of Computer Engineering

Istanbul Sehir University, Istanbul, Turkey **August 2018 - June 2020**
Bachelor of Science CGPA: 3.96/4.00
Department of Computer Science and Engineering

Khana-e-Noor, Mazar-e-Sharif, Afghanistan **March 2014 - January 2017**
High School Grade: 99%. Rank: 1

PROFESSIONAL EXPERIENCE

University of Illinois Urbana-Champaign, IL, USA **May 2021**
Research Intern, Reyhan's Lab **- Present**

Istanbul Technical University, Istanbul, Turkey **June 2020**
Research Assistant, Bioinformatics and Databases Lab **- Present**

Istanbul Sehir University, Istanbul, Turkey **June 2019**
Research Assistant, Bioinformatics and Databases Lab **- June 2020**

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

RESEARCH EXPERIENCE

Marmara University, Istanbul, Turkey **July 2021**
Research Student **- Present**

- *Artificial Intelligence:* Utilizing deep learning techniques to estimate the depth of different objects in a scene using stereo images. *This is part of senior graduation project, and an ongoing research work.*

University of Illinois Urbana-Champaign, IL, USA   **May 2021**
Research Intern   **- Present**

- *Software Engineering and Artificial Intelligence:* Design and implementation of deep learning techniques to construct an automated test oracle. We hypothesize that if we train a deep learning model to embed both test and the code under test into a unified vector space, so that the passing tests are closer to correct code and failing tests are closer to the buggy code in the embedding space given their corresponding inputs, this deep learning model can serve as an oracle. *This is an ongoing research work.*

Istanbul Technical University, Istanbul, Turkey   **June 2020**
Research Assistant, Bioinformatics and Databases Lab   **- Present**

- *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 muatation 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, Bioinformatics and Databases Lab   **- 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.

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.

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

Conference/Workshop Publications

C1. 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. (2020). 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.*

Manuscripts to be submitted

N1. Jabbarvand, R., Ibrahimzada, A. R., Tekinoglu, D., & Varli, Y. (2021). Revisiting The Oracle Problem: Learning The Semantic Relationship Between Inputs and Outputs.

HONORS AND AWARDS

- 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**

- Travel Award for attending QUEST-2015, 4th International Festival of Biotechnology in Lucknow, India. Khana-e-Noor Educational Network. **August 2015**

ACTIVITIES

- Team leader, 11th Afghanistan National Science Competition, Kabul, Afghanistan **September 2016**

- Team member, 4th International Festival of Biotechnology, Lucknow, India **August 2015**

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