

Hakime Öztürk

German Cancer Research Center (DKFZ)

Heidelberg, Germany

h.oeztuerk@dkfz-heidelberg.de

hkmztrk.github.io

 [hkmztrk](https://hkmztrk.github.io)  [scholar](#)

RESEARCH INTERESTS	Bioinformatics, machine learning, natural language processing	
EDUCATION	Boğaziçi University , İstanbul, Turkey Ph.D., Computer Engineering Advisors: Arzucan Özgür and Elif Ozkirimli Thesis: Text-based Machine Learning Methodologies for Modelling Drug-Target Interactions	2014 - 2019
	Boğaziçi University , İstanbul, Turkey M.S., Computer Engineering Advisors: Arzucan Özgür and Elif Ozkirimli Thesis: Analysing Drug Targets Using Ligand Similarity	2012-2014
	Dokuz Eylül University , İzmir, Turkey B.S., Computer Engineering Advisor: Suleyman Sevinc Thesis: Machine learning methods and distance measure in classification of proteins	2008-2012
PROFESSIONAL EXPERIENCE	German Cancer Research Center (DKFZ) , Heidelberg, Germany Computational Genomics and System Genetics , Dr. Oliver Stegle Post-doctoral researcher	Dec 2019–today
	Boğaziçi University , İstanbul, Turkey Teaching Assistant, Department of Computer Engineering	Sept 2018–Nov 2019
	Boğaziçi University , İstanbul, Turkey Data Analyst, Technology Transfer Office • Automatized data collection and analysis for various research related tasks	Apr2016–Aug 2018
	VeriPark , Izmir, Turkey Junior Software Developer, Internet Banking Branch • Development of the Internet Banking system for AKBANK using ASP.NET	Jun 2010 – Nov 2010
TEACHING EXPERIENCE	Boğaziçi University , İstanbul, Turkey Teaching Assistant, Department of Computer Engineering • CMPE140, Introduction to Programming R • CMPE150, Introduction to Programming C	Sept 2018–Nov 2019 Fall 2018 Fall 2018, Spring 2019, Fall 2019
	Boğaziçi University , İstanbul, Turkey Project Advisor, Department of Computer Engineering • CMPE492, Senior Project	Spring 2017, Fall 2017, Fall 2018

Boğaziçi University, İstanbul, Turkey
Project Advisor, Department of Chemical Engineering
• CHE492, Senior Project

Fall 2015, Spring 2016, Fall 2016

Boğaziçi University, İstanbul, Turkey
Course Assistant, Department of Computer Engineering
• CMPE493, Introduction to Information Retrieval

Fall 2015

AWARDS

Best Doctoral Dissertation Award *Boğaziçi University* (2020)
ISMB/ECCB Travel Fellowship Award *by ISCB* (2019)
TUBITAK 2224A International Travel Fellowship Award (2018)
ISMB Travel Fellowship Award *by Akamai* (2018)
ISMB/ECCB Travel Fellowship Award *by ISCB* (2017)
TUBITAK – BIDEB 2211 PhD Scholarship (2014 – 2019)
TUBITAK – BIDEB 2210 Master Scholarship (2012 – 2014)

PUBLICATIONS

- [1] Özcelik, Riza, Hakime Öztürk, Arzucan Özgür and Elif Ozkirimli. ChemBoost: A chemical language based approach for protein-ligand interaction prediction *Molecular Informatics*, 2020 doi: [10.1002/minf.202000212](https://doi.org/10.1002/minf.202000212)
- [2] Öztürk, Hakime, Arzucan Özgür, Philippe Schwaller, Teodoro Laino and Elif Ozkirimli. Exploring Chemical Space using Natural Language Processing Methodologies for Drug Discovery. *Drug Discovery Today*, 25.4, 689-705. 2020 doi: [10.1016/j.drudis.2020.01.020](https://doi.org/10.1016/j.drudis.2020.01.020)
- [3] Öztürk, Hakime, Arzucan Özgür and Elif Ozkirimli. DeepDTA: Deep Drug-Target Binding Affinity Prediction. *Bioinformatics*, 34.17, i821–i829, 2018 doi: [10.1093/bioinformatics/bty593](https://doi.org/10.1093/bioinformatics/bty593)
- [4] Öztürk, Hakime, Arzucan Özgür and Elif Ozkirimli. A novel methodology on distributed representations of proteins using their interacting ligands. *Bioinformatics*, 34.13, i295–i303, 2018 doi: [10.1093/bioinformatics/bty287](https://doi.org/10.1093/bioinformatics/bty287)
- [5] Cilek, Emine Ezel, Hakime Öztürk, and Bala Gur Dedeoglu. Construction of miRNA-miRNA networks revealing the complexity of miRNA-mediated mechanisms in trastuzumab treated breast cancer cell lines. *PloS one*, 12.10, e0185558, 2017 doi: [10.1371/journal.pone.0185558](https://doi.org/10.1371/journal.pone.0185558)
- [6] Soğancıoğlu, Gizem, Hakime Öztürk, and Arzucan Özgür. BIOSSES: a semantic sentence similarity estimation system for the biomedical domain. 33.14, i49-i58, 2017 *Bioinformatics*, doi: [10.1093/bioinformatics/btx238](https://doi.org/10.1093/bioinformatics/btx238)
- [7] Öztürk, Hakime, Arzucan Özgür and Elif Ozkirimli. A comparative study of SMILES-based compound similarity functions for drug-target interaction prediction. *BMC Bioinformatics*, 17.1, 1, 2016 doi: [10.1186/s12859-016-0977-x](https://doi.org/10.1186/s12859-016-0977-x)
- [8] Öztürk, Hakime, Arzucan Özgür and Elif Ozkirimli.. Classification of Beta-lactamases and penicillin binding proteins using ligand-centric network models. *PloS one*, 10.2, e0117874, 2015 doi: [10.1371/journal.pone.0117874](https://doi.org/10.1371/journal.pone.0117874)

WORKSHOP PAPERS

- [9] Yüksel, Atakan, Hakime Öztürk, Elif Ozkirimli, and Arzucan Özgür. CNN-based Chemical-Protein Interactions Classification. *Proceedings of the BioCreative VI Workshop*, Bethesda, MD, 2017

PREPRINTS

- [10] Öztürk, Hakime, Arzucan Özgür and Elif Ozkirimli. WideDTA: prediction of drug-target binding affinity *arXiv preprint*, 2019 [arXiv:1902.04166](https://arxiv.org/abs/1902.04166)

CONFERENCES

20th Genome Informatics Conference, Sep 2020, Virtual (Poster)

27th Conference on Intelligent Systems for Molecular Biology and the 18th European Conference on Computational Biology (ISMB/ECCB), July 2019, Basel, Switzerland (Short Talk)

19th International Conference on Systems Biology (ICSB), October 2018, Lyon, France (Talk, presented by Elif Ozkirimli)

17th European Conference on Computational Biology (ECCB), September 2018, Athens, Greece (Talk)

26th Conference on Intelligent Systems for Molecular Biology (ISMB), July 2018, Chicago, USA (Talk)

5th International BAU Drug Design Congress: Novel Methods and Emerging Targets in Drug Discovery & Patented Drug Development, October 2017, İstanbul, Turkey (Talk)

25th Conference on Intelligent Systems for Molecular Biology and the 16th European Conference on Computational Biology (ISMB/ECCB), July 2017, Prague, Czech Republic (Poster)

International Symposium on Health Informatics and Bioinformatics (HIBIT), October 2015, Muğla, Turkey (Poster)

International Symposium on Health Informatics and Bioinformatics (HIBIT), September 2013, Ankara, Turkey (Poster)

SUMMER SCHOOLS İsmail Ari Summer School: Artificial Intelligence in Bosphorous , July 2018, İstanbul, Turkey (Poster)

PROJECTS **Boğaziçi University Research Fund, BAP** 2016-2018
• Protein-Ligand Database Construction

INVITED TALKS Hakime Öztürk, “Text-based Machine Learning Methodologies for Modelling Drug-Target Interactions”, Graduate Seminar, Boğaziçi University, İstanbul, Turkey (22 Oct, 2019)

Hakime Öztürk, “On the way to the Drug Discovery”, Graduate Seminar, Galatasaray University, İstanbul, Turkey (24 Oct, 2017)

Hakime Öztürk, “Understanding Drug-Target Interactions”, Graduate Seminar, Boğaziçi University, İstanbul, Turkey (9 May, 2017)

Hakime Öztürk, ‘Introduction to network analysis: Cytoscape’, “Bioinformatics and its applications in Genetics Workshop”, Florence Nightengale Hospital, İstanbul, Turkey (21 November, 2015)

GUEST LECTURES Hakime Öztürk, “Dimensionality Reduction and Clustering for single-cell RNA-seq”, Computational Single-Cell Course, Heidelberg University, Heidelberg, Germany (08 June, 2020)

Hakime Öztürk, “A Hitchhikers’ Guide to Drug Discovery”, BSB511 Fundamentals of Bioinformatics, Gebze Teknik University, Kocaeli, Turkey (25 April, 2019)

Hakime Öztürk, “Deep Learning Applications in Bioinformatics”, CMPE597 Deep Learning, Bogazici University, İstanbul, Turkey (18 March, 2019)

Hakime Öztürk, “Drug Discovery”, BSB511 Fundamentals of Bioinformatics, Gebze Teknik University, Kocaeli, Turkey (28 April, 2017)

VOLUNTARY EXPERIENCE	moveMINT, Hochschule Mannheim , Mentor One-on-one mentoring of a female student to encourage STEM involvement. • Hochschule Mannheim, Mannheim, Germany	Oct 2020 - Jul 2021
	DjangoGirls , Mentor International workshop series that aim to introduce women to programming in Python and Django. • Prisynt, İstanbul, Turkey • Bilgi University, İstanbul, Turkey • KolektifHouse, İstanbul, Turkey • Boğaziçi University, İstanbul, Turkey • Lüleburgaz Municipality, Kırklareli, Turkey	26 October, 2019 28 April, 2018 17 October, 2017 26 February, 2017 21 December, 2016
	CodeFest , Mentor National event series to encourage high school students to learn programming. • Üsküdar American High School, İstanbul, Turkey	8 March, 2017
PROFESSIONAL ACTIVITIES	Reviewer for the Briefings in Bioinformatics Journal, 2020 - 2021 Reviewer for the BMC Bioinformatics Journal, 2019 - 2021 Reviewer for the Bioinformatics Journal, 2019 - 2020 Reviewer for the PeerJ Journal, 2020 Reviewer for the 27th Signal Processing and Communications Applications Conference, 2019 Reviewer for the Journal of Chemical Information and Modeling, 2018 Reviewer for the MWC-S18: MSc Workshop in Computing, 2018 Reviewer for the Clinical and Translational Medicine Journal, 2017	
MEMBERSHIPS	International Society for Computational Biology	2017 – 2020
CONTRIBUTED SOFTWARE PROJECTS	BIOSSES: Biomedical Semantic Similarity Estimation System http://tabilab.cmpe.boun.edu.tr/BIOSSES/ PLITool: Protein-Ligand Interaction Tool http://tabilab.cmpe.boun.edu.tr:8080/PLITool/	