

# Osman Batur İnce - CV

ospanbatyr.github.io

## EDUCATION

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<b>University of Edinburgh</b> <i>PhD in Designing Responsible NLP</i>	Edinburgh, Scotland <i>Sept. 2024 - June 2028</i>
<b>Koc University</b> <i>MSc in Computer Sciences &amp; Engineering, CGPA: 4.00/4.00</i>	Istanbul, Turkey <i>Sept. 2022 - August 2024</i>
<b>Bilkent University</b> <i>Bachelor of Science in Computer Engineering, CGPA: 3.88/4.00, Top 3%</i>	Ankara, Turkey <i>Sept. 2018 - June 2022</i>

## RESEARCH EXPERIENCE

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<b>PhD Student</b> <i>Ponti Lab - Centre for Doctoral Training in Designing Responsible NLP</i>	September 2024 – now <i>Edinburgh, Scotland</i>
<ul style="list-style-type: none"><li>Working on efficient multimodal models that can systematically generalize, supervised by Dr Edoardo Ponti</li></ul>	
<b>AI Fellow</b> <i>KUIS AI Lab</i>	August 2022 – August 2024 <i>Istanbul, Turkey</i>
<ul style="list-style-type: none"><li>Worked on compositional generalization and multimodal learning under the supervision of Assoc. Prof. Aykut Erdem, collaborated extensively with Prof. Erkut Erdem</li><li>Showed that using training dynamics of language models improves their compositional generalization, extended the work to large language models (LLMs) with additional diversity mechanisms</li><li>Emphasized the role of multiple modalities in improving compositional generalization</li><li>Investigated using vision grounded LLMs in medical domains</li><li>Proposed an open-source framework to advance medical LLMs by allowing full transparency from start to finish</li><li>Collaborated with another MSc student working on multimodal alignment for humour</li></ul>	
<b>Undergraduate Researcher</b> <i>Bilkent Information Retrieval Group</i>	July 2021 – April 2022 <i>Ankara, Turkey</i>
<ul style="list-style-type: none"><li>Worked on unsupervised concept drift detection for multi-label streams with label clustering</li><li>Sent a short paper to 45th ACM SIGIR w/Prof. Fazlı Can but paper was ultimately rejected</li></ul>	

## WORK EXPERIENCE

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<b>Data Science Intern</b> <i>JotForm</i>	June 2021 – July 2021 <i>Ankara, Turkey</i>
<ul style="list-style-type: none"><li>Built a PII detection system with a manual form reviewing app using spaCy, Presidio, Node.js, Flask, and React.</li><li>A dynamic app that protects JotForm users against phishing attacks with the help of PII detection system</li></ul>	
<b>Software Engineer Intern</b> <i>TUBITAK BILGEM YTE</i>	Aug. 2020 – Sept. 2020 <i>Ankara, Turkey</i>
<ul style="list-style-type: none"><li>Designed and programmed an event management system using React, Java Spring, and PostgreSQL.</li></ul>	

## PUBLICATIONS

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- OB İnce**, T Zeraati, S Yagcioglu, Y Yaghoozadeh, E Erdem, A Erdem. Harnessing Dataset Cartography for Improved Compositional Generalization in Transformers, Findings of EMNLP 2023.
- S Yagcioglu, **OB İnce**, A Erdem, E Erdem, D Elliott, D Yuret. Sequential Compositional Generalization in Multimodal Models, NAACL 2024.
- E C Acikgoz, **OB İnce**, R Bech, A A Boz, I Kesen, A Erdem, E Erdem. Hippocrates: An Open-Source Framework for Advancing Large Language Models in Healthcare, arXiv, 2024

## TEACHING EXPERIENCE

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<b>TAship</b>   <i>COMP201 - Computer Systems &amp; Programming</i>	Fall '22, Spring '23, Fall '23, Spring '24
<ul style="list-style-type: none"><li>Preparing labs, assignments, recitations, and exam questions. Grading assignments and exams.</li></ul>	

## PROJECTS

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**DovizTR** | *Dart, Flutter, JavaScript, Github*

Oct. 2020 – May 2021

- Co-owned (currency/stock tracking app) [doviztr.com](https://doviztr.com), developed the mobile app version with another developer

## TECHNICAL SKILLS

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**Languages:** Python, C, Java, JavaScript, C++, SQL (Postgres), HTML/CSS, Dart

**Libraries:** PyTorch, NumPy, pandas, React, Flutter

## OTHER INFORMATION

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**High Honor List:** Got over 3.5 GPA for 8 consecutive semesters in Bilkent University

**Full-Merit Scholarship Student:** Full tuition waiver & stipend during the BSc program

**Turkish University Entrance Exam:** Ranked **30th** & **257th** among 2 million participants in 1st and 2nd steps