Ali Najafi

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EDUCATION

Sabanci University, Istanbul, Turkey   *Feb. 2022 - Present*
M.Sc., Computer Science and Engineering
Thesis: Developing Turkish Language Models for Detecting Manipulations on Social Media
Advisors: Onur Varol
GPA: 3.95/4.0

University Of Tabriz, Tabriz, Iran   *Sept. 2017 - Sept. 2021*
B.Sc., Computer Science and Engineering,
CGPA: 16.58/20

PUBLICATIONS
GOOGLE SCHOLAR

Journal Articles

J.3 **Najafi, A.**, Onur Varol, Turkish BERTweet in the shadow of Large Language Models, (2023)

J.2 **Najafi, A**, et al. "#Secim2023: First Public Dataset for Studying Turkish General Election." arXiv preprint arXiv:2211.13121 (2022)

J.1 **Najafi, A.**, Gholipour-Shilabin, A., Dehkharghani, R. et al. ComStreamClust: a Communicative Multi-Agent Approach to Text Clustering in Streaming Data. Ann. Data. Sci. (2022)

CONDUCTED
RESEARCH AND
ACADEMIC
EXPERIENCE

VRLLAB, Istanbul, Turkey

- **Turkish BERTweet**
  * Achieved almost 10% significant improvement f1 score on Text Classification Tasks
  * Developed the best classification pipelines for Sentiment Analysis and Hate Speech Detection Tasks
  * Trained Turkish BERTweet from scratch using HuggingFace Transformers
  * Used Google TPUs for Training the Language Model
  * Utilized DeepSpeed accelerator for training the Model
  * Trained BPE tokenizer from scratch on 900M Turkish Twitter Data
- **CON-NET** under CHIST-ERA call funded by EU and TUBITAK
  * Integrating CONtent and NETwork structure for detecting, understanding, and mitigating online misbehaviour
  * Building multimodal machine learning systems for estimating automated activities
- **Turkish Election Dataset**
  * Analyzed the Retweet Speed of specific Turkish Politicians for different time spans of election day
  * Conducted network analysis of politicians on Twitter using Networkx and Gephi
  * Analyzed the followers of politicians to identify social bots using Botometer

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TEACHING
EXPERIENCE

Head Teaching Assistant   *Feb. 2023 - June. 2023*
Introduction to Data Science   *Sabancı University*
- Holding weekly office hours to answer questions about course content
- Led problem-solving sessions sections of 120 students on implementation of machine learning algorithms
- Co-designed assignments, and group projects to reinforce students' understanding of lessons
- Graded exams and assignments

Head Teaching Assistant   *June. 2022 - Feb. 2023*
Machine Learning   *Sabancı University*

- Assisted 120 undergraduate students with course material and assignments weekly during office hours
- Leading weekly problem-solving sessions of 30 students to supplement course material
- Co-designed assignments, and group projects to reinforce students' understanding of lessons
- Graded exams and assignments

Teaching Assistant   *Feb. 2022 - June. 2022*
Introduction to Computing   *Sabancı University*

- Leading weekly problem-solving sessions of 30 students to supplement course material
- Led problem-solving sessions sections of 120 students on implementation of machine learning algorithms
- Graded exams and assignments

COMPUTER AND LANGUAGE SKILLS

Skills:
    Programming Languages: Python, C++, Java
    Frameworks: Pytorch, Tensorflow, Keras, Flax, Jax, Django, OpenCV, NetworkX
    Librares: Matplotlib, Seaborn, Pandas, Numpy, Gephi
    DataBase: SQL, NoSQL (Redis), Map-Reduce
    Familiar with GCP, AWS, LaTeX, HTML, CSS, JS

Languages: English (Fluent), Persian (Native), Azerbaijani (Native), Turkish (Fluent)

HONORS AND AWARDS

TUBITAK Scholarship   *Aug. 2023 - Present*
The Scientific and Technological Research Council of Turkey, Turkey
Awarded to full tuition waiver and a monthly stipend as a researcher in a project funded by TUBITAK

Sabancı University Scholarship   *Feb. 2022 - Aug 2023*
Sabancı University, Istanbul, Turkey
Awarded a 100% tuition scholarship and a monthly stipend as a Teaching Assistant

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INVITED LECTURER

Applications of Large Language Models for Social Scientists, POLS537, Sabanci University,
Dr. Fatih Serkant Adiguzel