Shaghayegh Kolli
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Google Scholar

EDUCATION

Technische Universität München / University of Verona
Germany / Italy

MSC in Computer Engineering
2021-2024

- Thesis Title: Fake News and Machine-generated Text Detection for Persian and English

Allameh Tabatabaei University
Iran (Tehran)

MA in Media Management
2016-2019

- Thesis Title: The long-term use of Instagram and its relationship with increased visual attention on news followed by the picture: An Eye-Tracking Study.

Art University of Tabriz
Iran (Tabriz)

BA in Multi-Media
2013-2016

- Thesis Title: Developing an Emotional Interaction API for Computer Games.

EXPERIENCE

Infineon Technologies
Munich, Germany

NLP and ML Engineer (Part Time)
04/2024 – 10/2024

- ∗ Developed and optimized a Retrieval-Augmented Generation (RAG) application, improving the platform's company ranking system by 40%, moving from top 500 to top 300 rankings. Utilized LangChain libraries and fine-tuned LLama for enhanced accuracy.
- ∗ Integrated new features into the application using FastAPI, React, Python, PyTorch, and Flask, leading to improved user experience and functionality.

Cadence Design Systems
Munich, Germany

Software Developer(Part Time)
07/2023 – 12/2023

- ∗ Led GUI development using Python, React, and HTML/CSS.
- ∗ Integrated APIs for seamless application functionality.
- ∗ Debugged software and wrote well-tested code for software projects.

Technical University of Munich
Munich, Germany

Machine Learning for NLP (Mandatory Internship)
04/2023 – 07/2023

- ∗ Experimented with classifiers to differentiate between human and AI-generated text.
- ∗ Fine-tuned BLOOMZ-3B and Llama language models on multilingual datasets (Hungarian, Persian, Turkish, and English).

Digital Games Research Center
Tehran, Iran

Market Research Analyst (Full Time)
08/2019 – 10/2021

- ∗ Conducted data analysis and market estimation for the gaming industry using ML and deep learning techniques.
- ∗ Served as International Affairs Coordinator for the 6th International Conference on Computer Games (2021).

Art University of Tabriz
Tabriz, Iran

Teaching Assistant
02/2015 – 02/2016

- ∗ Assisted in Web-Based Programming Course, grading papers and managing problem-solving classes.
- ∗ Taught foundational skills in JavaScript, HTML, CSS

KEY PUBLICATIONS

Crafting Tomorrow's Headlines: Neural News Generation and Detection in English, Turkish, Hungarian, and Persian
EMNLP 2024, NLP for Positive Impact Workshop. Üyük, C., Rovó, D., Kolli, S., Varol, R., Dementieva, D., & Groh, G.

Digital Games Get Viral on Social Media: A Social Network Analysis of PokemonGo on Twitter
International Journal of Web Based Communities, 2020 D. Khajeheian & S. Kolli

How Instagram Changes the Way You See the News: An Empirical Study of Visual Attention by Eye-tracker
70th Annual ICA Conference, 2020, Australia, S. Kolli, S. Salavatian, & M. Hesampour

PROJECTS

Image Super-Resolution with Text Prompt Diffusion guided by VLM | *TUM-CAMP* 04/2024 – 09/2024
* Improving Image Super Resolution with the help of VLM.
* Fine-tuning CLIP for tagging and captioning pictures.
* Worked with Stable Diffusion for high-quality image generation.
* Integrated Vision Language Models for enhanced understanding of images.

Fine-tuning Diffusion Models for Icon Generation (Intern) | *FAST AI Movies* 05/2024 – 08/2024
* Research on Diffusion Models for icon generation.
* Prompt engineering

Covid-19 Dataset Forecasting to Predict Peak Points | *Verona University* 04/2022 – 09/2022
* Developed and implemented time-series forecasting models (ARIMA, LSTM) to analyze Covid-19 case trends.
* Cleaned and preprocessed large-scale Covid-related datasets, focusing on handling missing data and outliers for accurate prediction.
* Predicted future Covid-19 peak periods by analyzing historical data, providing insights for healthcare resource planning and response.

PROFESSIONAL AFFILIATIONS

Erasmus Mobility Scholarship (09/2022 - 07/2023)

Informatics Scholarship (University of Verona, 2022)

Women in CS Member (TUM) (09/2022 - 2024)

LANGUAGES

Persian (Mother Language), English (C1 - Advanced), Turkish (B2 - Upper Intermediate), German (A1 - Beginner)

TECHNICAL SKILLS

NLP, Generative AI, Large Language Models (LLM), Machine Learning, Deep Learning, Time Series
Programming Languages: Python, PyTorch, HTML, CSS, JavaScript, TypeScript, SQL, React
Tools & Technologies: LangChain, JINJA, Flask, OpenShift, Jira, Git, API design

HOBBIES

Video Games, Watercolor Painting, Sculpting, Fitness, Music, and Movies