AMIRALI GATMIRI

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PROFESSIONAL SUMMARY

Experienced Software Developer and Machine Learning Engineer with a strong background in Al-based solutions, backend development, and research. Adept at designing and deploying applications in real-world environments, with expertise in conversational Al, speech recognition, and neural network-based models. Proficient in Python, Django/Flask, and data-driven decision-making with a commitment to delivering high-quality, impactful solutions.

EXPERIENCES

Software Developer (Remote)

April 2024 - Present

DoneX - Montreal, Canada (Tehran, Iran)

Led the development of a Slack-integrated business assistant bot to connect to company databases for generating invoice reports and facilitating user interaction to edit invoice status. Additionally, initiated a conversational Al project for document-specific question-answering systems.

- · Gained expertise in Slack's Block Kit, API integrations, project management and scalability.
- Designed efficient backend architectures to handle dynamic user queries.
- Enhanced skills in chatbot frameworks and natural language processing for real-time applications.

Machine Learning Engineer

November 2022 - April 2023

Asr Gooyesh Pardaz - Tehran, Iran

- Built a benchmarking tool to evaluate speech recognition models with newly collected dataset and to compare performances of models.
- Worked on Persian text-to-speech models by training a new voice synthesis system using advanced speech processing techniques.
- Wrote blog articles to introduce key concepts in NLP (e.g., LLMs and ChatGPT) and make the technology more accessible to others.

Research Assistant

June 2021 – September 2021

Asr Gooyesh Pardaz - Tehran, Iran

- Developed a speech language detection tool using Time-delay Neural Networks (TDNN) and x-vector embeddings, capable of identifying over 110 languages in real-time.
- Explored and implemented research in keyword spotting (KWS) and voice conversion, turning findings into usable tools for the company.
- Gained hands-on experience with audio processing techniques, including embeddings like x-vector, i-vector, and wave2vec, for speech-based applications.

Research Intern

February 2019 - November 2020

Information, Network & Learning Lab - Tehran, Iran

Analyzed data leakage in the TLS protocol, identifying vulnerable segments of encrypted network data using machine learning models and proposing systematic masking solutions to mitigate vulnerabilities. Documented findings in a published research paper, contributing to advancements in network security and machine learning applications.

• Investigated data leakage in TLS protocols, applying CNNs, RNNs, and Decision Trees to identify vulnerable data segments and proposed systematic masking techniques to secure the protocol.

- Authored and presented a research paper, refining skills in academic writing, editing, and technical communication.
- Gained expertise in Python libraries (TensorFlow, PyTorch, Pandas) for machine learning and data analysis.
- Developed strong research capabilities, reading and applying insights from scientific papers to practical problems.

TECHNICAL STRENGTHS

Programming Languages Python, JavaScript, Java, C/C++, MATLAB, R, LaTeX

Machine Learning Libraries TensorFlow, PyTorch, Keras, Pandas

Backend Development Django, Flask, API

DatabasesMySQL, SQL Server, SSMSSoftware Dev. ToolsGit, Bash Script, DockerVideo EditingMagix Vegas, Adobe Premiere

EDUCATION

Sharif University of Technology 2015 – 2021

B.S. in Computer Engineering

GPA: 3.1/4 (15.2/20)

Atomic Energy Highschool 2011 – 2015

Diploma in Mathematics and Physics

GPA: 4/4 (19.3/20)

University Entrance Exam (Konkoor) Ranking: 138 [between 200,000 participants]

LANGUAGE SKILLS

English Full Proficiency **German** Working Proficiency

Farsi Native