



## Sha Yazdipour

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Software Engineer and Applied Science  
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### PROFILE

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Shahriar (Sha) is a versatile Software engineer with a Master's degree in Computer Science from TU Ilmenau, currently advancing his career at Ubisoft. He has a strong foundation in **Java and Cloud infrastructure** from his work at Ubisoft & TomTom, and a solid background in **ML/AI**, developed during his academic career where he worked extensively with transformer models. At university, he conducted research on state-of-the-art Text-to-SQL & Text-to-SPARQL. His diverse experience spans Android and Windows Phone development, along with contributions to open-source projects, showcasing his commitment to learning and passion for exploring innovative technologies.

### EDUCATION

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- **Masters, Computer Science & Systems Engineering:** TU Ilmenau, Germany
  - **Master's Thesis:** A Review on State-of-the-Art Text-to-SQL Solutions
  - Reviewed and compared cutting-edge Text-to-SQL solutions, including early (such as template based) and recent approaches (transformers and LLMs), analyzing their strengths and limitations.
  - Examined widely-used benchmark datasets for evaluating Text-to-SQL, spanning single-domain and large-scale, cross-domain (WikiSQL, Spider) datasets.
  - Obtained strong results with T5-PICARD and GPT Models, showcasing its ability to generate accurate SQL queries, even without fine-tuning for specific datasets.

### WORK EXPERIENCE

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- **Service Engineer/SWE at 'UbiSoft' - Dusseldorf - Germany** August 2022 - Now:
  - Implementation and design of an Event Driven Micro service application on multi cloud infrastructure.
  - Maintaining 7 different Services for tackling toxicity and abuse in online video games.
  - Working in an **Agile** Environment and Multicultural Team.
  - Participating in code reviews and contributing to Java/C#/Python/TypeScript projects.
  - Developing **AWS** Infrastructure such as Serverless Lambda and maintaining Kubernetes.
  - Working on API design and Maintaining CI/CD pipelines.
- **Software Engineer Intern at 'TomTom' - Berlin, Germany:** Aug 2020 - July 2022
  - Delivering services in the field of traffic information, tested and applied in the real-production system.
  - Developing **Java Spring/Quarkus** leveraging Protobuf in REST API and MQTT Service.
  - Working with **Microsoft Azure Cloud, Kubernetes and Infra as Code.**
- **Android Software Engineer at 'GFPishro Co' - Tehran, Iran:** Oct 2017-Jan 2019
  - Developed innovative Geo Information Service/Software-Package, integrating **Android / iOS Xamarin** mobile applications for seamless offline user experience on our customers Intranet.

### SKILLS & EXPERIENCES

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- **Python:** PyTorch, Huggingface, Keras, Flask, PyAutoGui
- **Java:** Spring, Android, Swing, Quarkus
- **C#:** .NET, Xamarin, UWP, WPF
- **Web:** HTML, CSS, TS, jQuery
- **Databases:** MySql, SQLite, PostgreSQL
- **Tools:** Git, Docker, Kubernetes, Azure Cloud, AWS Cloud

## PROJECTS

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- **HarpoonAI - RAG LLM for Docs-Code-APIs:** Dec 2023
  - Ubisoft Hackathon project connecting internal APIs with LLM.
  - Enables querying an internal LLM to call API endpoints in a chain, generate documentation and code within the corporation, using LangChain and Azure OpenAI service.
- **Text-to-SPARQL Question Answering Transformer (NL2Script):** Aug 2021
  - Task: Implementation of sentence embedding for learning the transformation of questions to SPARQL queries with DBPedia - WikiData data integration in **Google T5 and BERT Transformer**.
  - Pre-processing and collecting a data-set with specific features needed.
  - Implement Fine Tuning steps for T5 Language model using **Pytorch**.
  - Developing a pipeline from data to deploying the model to Huggingface repositories.
- **Covid-19 Opinion Leaders on Twitter - Data Mining and Graph Analysis:** Sep 2020
  - Identified opinion leaders on Twitter using social network **graph analysis** methods.
  - Pre-processed a 300GB Twitter dataset with specific features using parallel computing approaches.
  - Applied social network analysis methods to find opinion leaders using the **NetworkX**.
- **Developed MIRA Robot navigation system:** Dec 2019
  - **OpticalFlow and Color Segmentation** Navigation using its camera system with C++
  - Object Detection using ResNet, ImageNet architecture with **Pytorch**
- **Recommendation System for Student Applicants, Seeking Financial Scholarship for Studying Abroad:** 2017
  - We have implemented a technique to bypass vBulletin CMS authentication system to crawl unstructured raw data from it and provide a dataset
  - Using **data analysis methods such as Decision tree, K-Nearest Neighbor and K-Means** to determine chance of getting fund for graduate students.
- **UWP/WPF Applications (First Persian UWP Developer):** 2015 - 2016
  - Developed iTehran which is the First Persian UWP application.
  - Developed multiple WPF and UWP application with more than 30,000 users download overall.
  - Used MVVM, Xaml and C# to design Desktop and Mobile friendly applications.
  - Designed UI and Logo using Adobe XD and Photoshop.
- **Open source projects**  
<https://github.com/yazdipour>

## PUBLICATIONS

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- **Github Data Exposure using GraphQL Security Design Flaw (1k\$ Bug Bounty)** 2019  
*S.Yazdipour\*, CCSE2020 - The 10th International Conference on Computer Engineering, Ilmenau Germany* [Published]
- **Decision Support for International Students Who Want to Fund Their Graduate Studies** 2017  
*S.Yazdipour\*, N.Taherian " (IEEE) International Conference on Machine Learning and Data Science, India"* [Published]