Firat Adem Bilge

Software Engineer

✉ firatadem.bilge@gmail.com   ☐ (+39) 3388733245   in linkedin.com/in/adembilge   ⌗ github.com/atikfirat

SUMMARY

Software Engineer with a strong foundation in **machine learning** and **back-end development**, supported by 3 years of professional experience in **R&D** projects. Skilled in **statistics**, **programming**, and data analysis. Interested in driving large-scale **machine learning** and **big data** solutions research / projects at the enterprise level.

EDUCATION

Politecnico di Milano   *Sep 2024 - Present*
*MSc in **Computer Science and Engineering***   *Milan, Italy*

Hacettepe University   *Oct 2017 - May 2022*
*BSc in **Computer Science** / Honor Student* (3.33/4.00)   *Ankara, Turkey*

EXPERIENCE

Big Data Engineer   *Sep 2022 - Sep 2024*
HAVELSAN   *Ankara, Turkey*

- Built a scalable **cloud big data** infrastructure leveraging cutting-edge technologies.
- Contributed to the development and design of a **distributed computing** architecture that processed a large dataset exceeding 600TB using **Dask**.
- Utilized **Docker** for **containerization** within a **Kubernetes** cluster consisting of over 300 nodes.
- Implemented **gRPC** in a **micro-service** architecture to enable seamless communication between services.
- Used **Kafka** as a messaging platform for real-time and asynchronous data streaming and processing.

Machine Learning Engineer   *Aug 2021 - Aug 2022*
HAVELSAN   *Ankara, Turkey*

- Developed and trained **deep learning**-based fingerprint **segmentation** system using **PyTorch**.
- Played an active role in optimizing algorithm performance through **data analysis** and preprocessing.
- Conducted extensive **research** and experimentation on suitable segmentation models, implemented them, and obtained base results from the raw dataset.
- Achieved a robust algorithm with accuracy rate of 92%, across a wide range of data quality and condition.

Software Engineer   *Jul 2020 - Oct 2020*
ULAK HABERLEŞME   *Istanbul, Turkey*

- Part-time position, involved in the development of a real-time messaging application with **Python**.
- Established reliable communication between the server and clients by utilizing **Django** framework and **socket programming** in **back-end** development.
- Conducted **bandwidth tests** to measure the data transfer rate to ensure optimum performance of the project.

PUBLICATION

Tinysign: sign language recognition in low resolution settings   *Sep 2024*

- Hüseyinoğlu, A., Bilge, **F.A., Bilge**, Y.C. et al. Tinysign: sign language recognition in low resolution settings. SIViP (2024). https://doi.org/10.1007/s11760-024-03358-z

SKILLS

Programming Languages:	Python - Java - SQL
Frameworks & Libraries:	PyTorch - Django - FastAPI - Spring - gRPC & Pandas - Dask - NumPy - OpenCV
Cloud & DevOps:	Kubernetes - Docker - AWS
Tools & Technologies:	PostgreSQL - Kafka - Git - Linux
Spoken Languages:	Turkish(Native) - English(Professional) - Italian(Intermediate)