Aksel Dindisyan

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Research Interest

I am highly passionate about **Computer Vision**, having applied it in both academic research such as my published paper on brand logo detection at SIU and industrial implementations at Ford Otosan. I am also deeply interested in **Machine Learning** and **High-Performance Computing (HPC)**, skill sets I leveraged extensively to optimize my capstone project. Furthermore, I have expanded my expertise into **Natural Language Processing (NLP)** and transformer models through the CLARITY project and my engineering internship at Orbislabs.

Education

Sabancı University — Istanbul, Turkey
Faculty of Engineering and Natural Sciences
Major: Computer Science and Engineering — Oct 2022 – Jun 2026
Double Major: Industrial Engineering — Oct 2022 – Expected Jun 2027
CGPA: **3.96** / 4.00 • Ranking: **5** / 252

Eindhoven University of Technology — Eindhoven, Netherlands
Mathematics and Computer Science Department — Feb 2025 – Jul 2025
Major: Computer Science and Engineering (Erasmus Exchange)

Research Experience

Virallab (Sabancı University) — Istanbul, Turkey
Research Assistant — Oct 2025 – Present

- Created ground truth annotations by using **WBF** (Weighted Boxes Fusion) to aggregate multiple user annotations.
- Developed a computer vision pipeline by combining a **DINOV3** backbone with a **DETR** classification head to detect brand logos on social media platforms.
- Proved robustness of social media based dataset by comparing models trained on VRL-SM-Logo against models trained on FlickrLogos-27 .

Publications

- Özgün Yargı, **Aksel Dindisyan**, Onur Varol, "Brand Logo Detection in Social Media Images", *34th Signal Processing and Communications Applications Conference (SIU)*, IEEE, Istanbul, Turkey, July 2026. DOI: 10.1109/SIU71813.2026.11636669

Teaching & Mentoring Experience

Sabancı University — Istanbul, Turkey
Learning Assistant - CS 307 Operating Systems — Oct 2026 – Present

- Assisted **110** students with assignments related to operating system principles by organizing office hours.
- Worked on **Selfie** in order to explore its possible use cases in the OS curriculum.

Sabancı University — Istanbul, Turkey
Learning Assistant - IF 100 Computational Approaches to Problem Solving — Oct 2025 – Jun 2026

- Organized weekly office hours to support a total course cohort of **670** students with lecture-related queries.
- Led two weekly recitation sections, guiding **63** students through Python-based problem sets and code debugging.

Industry & Technical Experience

Mercedes-Benz Türk — Istanbul, Turkey
Intern - Technical Procurement — Jun 2026 – Aug 2026

- Analyzed relationships between the Strait of Hormuz Crisis and commodity prices.
- Developed forecasting methods that predict commodity prices in order to optimize procurement strategies.
- Ran **Monte Carlo** simulations based on extracted conflict **Markov Chain** probabilities in order to notify the procurement team about possible price trends.

Orbislabs AI Istanbul, Turkey
Intern Aug 2025 – Sep 2025

- Researched LLM architectures and AI agent development frameworks such as **LangChain** and **Langflow**.
- Engineered a CV analyzer agent in order to accelerate the hiring process.
- Engineered a Text2SQL converter in order to automate data processing tasks in enterprises.

Ford Otosan Istanbul, Turkey
Intern Jul 2025 – Aug 2025

- Implemented and optimized computer vision algorithms such as **BEVFusion** to enhance autonomous vehicle perception systems.

Projects

Explainable HPC Optimization for Container Terminals Oct 2025 – Jun 2026

- Optimized berth allocation for cargo ships using **heuristics**, **mixed integer programming**, and **dynamic programming**.
- Used **OpenMP** to parallelize heuristics for **40 times** faster results.
- Trained machine learning models to predict the dwell time of containers at the terminal.

CLARITY - Unmasking Political Question Evasions Oct 2025 – Jan 2026

- Conducted extensive data analysis and feature engineering on text datasets to identify linguistic patterns of evasion.
- Fine-tuned transformer models (Neural Networks, **RoBERTa**, **Llama 8B/70B**), achieving a **0.74 Macro F1 score** to successfully classify evasive political rhetoric within a highly imbalanced dataset.

Machine Learning Project on Instagram Data Oct 2024 – Jan 2025

- Processed large-scale Instagram datasets using Pandas, uncovering engagement trends that correlated with posting times.
- Developed machine learning algorithms such as **random forest** and **gradient boosting** by using Scikit-learn.
- Ranked **13/138** in classification task with **0.879** weighted f1 score and **7/138** in regression task with **597** regression error.

Data Science Project on My Step Counts Oct 2024 – Jan 2025

- Explored my own step count data using line graphs, histograms, box plots, and a Pearson correlation matrix.
- Verified hypotheses on step count trends using t-tests and Chi-square tests.
- Trained two distinct random forest models to predict step counts: one utilizing temporal features (time periods), and another utilizing health metrics (sleep time, weight, and well-being).

Awards & Scholarships

- Placed **4391st** out of 1,429,833 candidates (0.3%) in the Higher Education Institutions Exam (YKS).
- Sabancı University Merit-Based Scholarship: 50%.
- Placed on the Sabancı University Dean's List for 5 semesters.
- Obtained Sakıp Sabancı Encouragement Scholarship for 2 years.
- Obtained **TÜBİTAK STAR** Researcher Scholarship from March 2026 to July 2026.

Leadership & Activities

CSS, Computer Science Society Istanbul, Turkey
Board Member Oct 2023 – Aug 2024

- Collaborated with team members to execute club activities such as seminars and workshops.

QSB SU, QTurkey Student Branch Sabanci University Istanbul, Turkey
Co-Founder and Vice President Jul 2023 – Jul 2024

- Established QSB SU to promote awareness of quantum technologies, organizing and leading technical seminars, hackathons such as **IBM Qiskit Fall Fest 2023**.

Skills & Interests

Technical: C++, Python, Java, R, OpenMP, CUDA, Open MPI, SQL, MongoDB, PyTorch, TensorFlow, Spark.
Soft Skills: Critical Thinking, Analytical Skills, Problem Solving, Teamwork, Leadership, Research Skills, Entrepreneurship.
Language: Turkish (Native), English (Full working proficiency, C1).