Ahmet Uman

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About Me

Computer Engineering graduate specialized in **computer vision, graphics, and algorithms**. Hands-on experience in accelerating, deploying, and scaling AI models using **TensorFlow, PyTorch, and CUDA.** Delivered production-level solutions in **face recognition, image generation, OCR, and synthetic data**. Skilled in **CI/CD, Docker, and Linux** environments.

Experience

Baykar Teknoloji *Artificial Intelligence Engineer Intern* **Istanbul, TR** *08/2025 - Present*

- Researched and implemented **Gaussian Splatting** techniques for **synthetic data generation** in AI systems.
- Conducted **literature reviews and experimental evaluations** to improve **model efficiency and rendering quality**.Deployed and benchmarked state-of-the-art **open-source repositories** on GPU clusters, utilizing **CUDA and PyTorch**.
- Collaborated with the **AI Software Technologies Department** to integrate synthetic data pipelines into existing workflows.

InfoDif *Artificial Intelligence Engineer Intern* **Ankara, TR** *06/2025 - 07/2025*

- Conducted research on **Word Sense Disambiguation (WSD)** for semantic analysis.
- Implemented an **AI-powered Chess Bot** for terminal. Built **image detection and solving algorithms for Sudoku puzzles**, applying **computer vision + rule-based reasoning**.
- Supported R&D efforts by **labeling and curating image datasets**, improving training data quality for vision tasks.

BTS Group *Mental Arts Internship* **Remote, Istanbul, TR** *10/2024 - 05/2025*

Training Program

- Participated in training program at BTS LABS that includes AI, Data, DevOps, Software Engineering topics. Optimized **Docker, Kubernetes, CI/CD pipelines**.

BITES Defence and Aerospace *Computer Engineering Intern* **Ankara, TR** *07/2024 - 09/2024*

- Designed and developed a **face recognition system** and optimized **database query performance from 250ms to 75ms**. Developed a **HOG-based face recognition model with Dlib and OpenCV**, reducing GPU inference time by **40%**.
- **Built a low-latency API with FastAPI**, optimizing the model for real-time queries. Contributed to the integration of the **Spring Boot and Angular-based web platform**.

Problem Setter & Instructor *ACM Hacettepe* **Ankara, TR** *11/2022 - 03/2024*

- **Prepared 7 algorithmic problems** (2 hard, 3 medium, 2 easy) for **HUPROG'24, one of Turkey's largest competitive programming contests**. Taught **Dynamic Programming and Graph Algorithms** to 12 students.

Projects

Graduation Project *(LLM-Supported Image Generation in Fashion Domain)*

- Developed an **LLM-supported image generation system using Stable Diffusion model** as part of a project supported by **HAVELSAN SUIT**.
- Focused on **model efficiency and inference optimization**, experimenting with **ControlNET and HieraFashion techniques**.

Tooningo *(AI-Powered Comic Book Translation – Hacettepe Technopark Pre-Incubation)*

- Developed **OCR + CV models (YOLO, Tesseract OCR)** for multilingual comic translation.
- Cut inference time by **50%**, reducing OCR latency from **120ms to 60ms** with CUDA. Applied layer pruning & fusion for efficiency.

Certificates

- 2024 TEKNOFEST Natural Language Processing Competition (October 2024) - Digital Badge
- Machine Learning Specialization (August 2024) - DeepLearningAI, Stanford University

Education

Bachelor's Degree in Computer Engineering *Hacettepe University* *2021*

- **Relevant Courses**: Computer Graphics, Image Processing, Machine Learning, Data Management, Theory of Computation, Data-Intensive Applications, Defense Industry 401, Computational Photography.
- **Communities**: ACM Hacettepe (RD Member), Free Software Community (Board Member), Knights Board Game Club.