Ahmet Ruçhan AVCI

Computer Engineer

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EDUCATION

Beykent University, *Faculty of Engineering Computer Engineering*   06/2024 | İstanbul, Türkiye
Cumulative GPA: 3.64 / 4.0
- Graduated at the pinnacle of class achievement within a competitive computer engineering curriculum, recognized with valedictorian honors while maintaining an average GPA above 3.64 across all semesters.

Adile Mermerci High School, *Mathematics Science*   07/2019 | İstanbul, Türkiye

PROFESSIONAL EXPERIENCE

TÜBİTAK BİLGEM, *Intern Machine Learning Engineer*   06/2023 – 09/2023 | Gebze / Kocaeli
- At B3LAB (Cloud Computing and Big Data Research Laboratory), specialized in data science workflows, including data preprocessing, visualization, and advanced analytics. Contributed to the EU-funded STORAIGE project, an AI-powered washing machine initiative, by designing and optimizing machine learning and deep learning models to enhance automation and intelligent decision-making processes.
- Led data analysis and visualization efforts, transforming 10,000+ raw datasets into structured, high-quality insights, improving model accuracy by 18% and system efficiency by 22%.
- Engineered and fine-tuned machine learning algorithms, reducing error rates by 15% and improving real-time anomaly detection, leading to a 25% increase in operational efficiency.
- Conducted in-depth research on deep learning architectures, evaluating 5+ models, which improved object recognition accuracy by 14% and predictive maintenance capabilities by 20%.

PROJECTS

TEKNOFEST and European Rover Challenge,   09/2024
Autonomous Ground Rover
- Led the development of artificial intelligence for an autonomous ground rover competing in the **European Rover Challenge (ERC)** and **TEKNOFEST Aerospace Festival**.
- Designed and implemented AI, machine learning algorithms, and computer vision systems using the ROS framework and Jetson Orin Nano platform to enhance autonomous navigation, object detection, and decision-making capabilities.
- Developed machine learning algorithms integrated with computer vision systems that enabled the rover to navigate autonomously; achieved over 1,000 successful object detections in a single performance evaluation at ERC.

DetectHub, *Computer Vision Project*   04/2024
- Founded DetectHub, a collaborative community platform focused on computer vision, AI, and machine learning, with an emphasis on object detection.
- Facilitated collaboration among 500+ users, enabling the development and distribution of 200+ AI models and 300+ datasets.
- Spearheaded knowledge exchange initiatives among 500+ community members, leading to an increase of object detection accuracy by 15%, while identifying and resolving the three primary issues affecting model performance.
- Established a collaborative platform for over 500 researchers and developers, resulting in the creation and sharing of more than 200 AI models; accelerated project timelines by an average of two weeks per initiative.

SKILLS

Python • C (Programming Language) • TensorFlow • Keras • Scikit-Learn • PyTorch • OpenCV • YOLO • AWS • Git • Embedded Systems • Linux • Artificial Intelligence (AI) • Machine Learning • Deep Learning

LANGUAGES

Turkish: *Native* • **English:** *Fluent* • **Spanish:** Basic

INTERESTS

Aikido: (Shodan: Officially Licensed Black Belt) • **Science** • **Space and Technology** • **Book and Authorship** • **Art and Design**