Achilleas Leivadiotis

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ABOUT ME

Data Science and AI student with software development internship experience, adept at building full-stack applications and implementing secure RESTful APIs. Experienced in collaborating on cross-functional teams to design, develop, and test robust software solutions. Brings a strong foundation in machine learning and analytical problem-solving, with a drive to continuously learn new technologies and enhance software quality.

EDUCATION

Maastricht University   **Sep 2022 - Jul 2025**
Bachelor, Data Science & Artificial Intelligence
- **GPA:** 7,16/10
- **Coursework:** Data Analysis, Intelligent Systems, Calculus (9), Computer Security (9), Data Structures and Algorithms (9), Databases (7), Human Computer Interaction & Affective Computing (10), Introduction to Bio-Informatics (8), Large Scale IT and Cloud Computing (8), Machine Learning (6), Probability and Statistics (7), Simulation and Statistical Analysis (7), Software Engineering (7)

Anatolia College High School & Gymnasium Kassandra Middle School   **Sep 2017 - 2022**
IB Diploma Program
- **Achievements:** Recognized for Academic Excellence by the Greek Ministry of Education (National Merit Program)

University of New Hampshire, Project SMART – Biotechnology, Online summer Program   **Jul 2020**
Biotechnology

WORK EXPERIENCE

EUROCONTROL   **Feb 2025 - Present**
AI Research And Development Intern   *Maastricht*
- Enhanced aviation environmental efficiency by developing and refining machine learning models for contrail detection and real-time tracking, leveraging Python and robust debugging practices aligned with best software engineering standards.
- Engineered scalable data processing solutions using Azure Databricks and Apache Spark within Microsoft's Azure ecosystem, demonstrating a strong grasp of cloud platforms and distributed computing.
- Optimized instance segmentation by fine-tuning Detectron2 and integrating deepSORT for precise tracking, achieving improved performance metrics (83% MAP for bounding box and 65% for segmentation accuracy) while adhering to clean, maintainable coding principles.
- Designed an end-to-end flight attribution pipeline employing 3D-to-2D geometric projection and convolution-based matching to associate contrails with flights, showcasing effective problem-solving and real-time issue resolution techniques.

SCOPE Maastricht   **Sep 2024 - Mar 2025**
Marketing Manager
- Orchestrated the promotion and organization of an international tech and sales trip to Dublin, collaborating seamlessly with cross-functional teams and applying methodical project management skills.
- Coordinated with diverse stakeholders to boost event attendance and secure strategic partnerships, reflecting strong communication and teamwork capabilities.
- Developed and implemented targeted marketing strategies that elevated event visibility and attracted sponsorships, demonstrating an ability to document and share technical processes in a clear manner.

Next Generation Sensors B.V.   **Jun 2024 - Aug 2024**
Software Developer Intern
- Using Tech Stack: TypeScript, Angular, MongoDB: Built a new website including support pages, authentication systems, admin dashboards, and client messaging tools.
- Implemented secure RESTful APIs and database schemas to handle user data efficiently.

PROGRAMMING / AI PROJECTS

3D MEP Component Location/Type Predictor   **Sep 2024 - Present**
Equans S.A.S
- Built a proof-of-concept AI system that automatically places MEP (Mechanical, Electrical, Plumbing) components in a 3D Revit building model, predicting both (x,y,z) coordinates and type.
- Developed multiple neural-network architectures from scratch (MLP & 1D CNN with depthwise/residual blocks) in PyTorch, leveraging a context window to incorporate adjacent-unit data for improved accuracy.
- Implemented specialized training loops with distance-based loss functions to quantify placement errors, successfully demonstrating the feasibility of an an AI-driven approach to MEP component placement.

AI Image Detector   **Mar 2024 - Jul 2024**

Maastricht University
- Goal: Predictive modeling to identify AI-generated images.
- Developed Convolutional and residual neural networks, with a front-end interface to upload images and view heatmaps of detection results.

UNO replication with addition of Bots   **Sep 2023 - Jan 2024**

Maastricht University
- Recreated the UNO card game with AI-driven bots.
- Built a graphical interface, implemented Monte Carlo search bots and neural-network-based strategy.

OTHER

- **Languages / Programming**: Greek, English, MATLAB, HTML, CSS, SQL, REST API, Java, Python, JavaScript, TypeScript
- **Databases**: NoSQL
- **Data Science / AI Libraries**: Pandas, NumPy, scikit-learn, PyTorch, TensorFlow, OpenCV
- **Version Control**: Git, GitHub, GitLab
- **DevOps & Cloud**: CI/CD pipelines, Cloud platforms
- **Interests / Hobbies**: Chess, playing piano, playing guitar, swimming, traveling, spearfishing, fishing, cycling, exploration