

Filip-Mihai Muntean

Date of birth: 01/01/2002 **Nationality:** Romanian

Gender: Male

CONTACT





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https://github.com/filipmuntean (Github)

ABOUT ME

I'm a motivated second-year Master's student in Artificial Intelligence with a passion for NLP and large language models. My role as a Software Developer at Vrije Universiteit Amsterdam, where I streamlined submission processes and developed scalable solutions, has honed my technical and problem-solving skills. I aim to leverage my expertise in machine learning, data visualization (Tableau), database management (SQLite), and web frameworks (Django) to pursue a career as a Data Architect or Data Engineer. My current program allows me to dive deep into machine learning, neural networks, and data science, expanding my technical knowledge and professional network.

WORK EXPERIENCE

01/08/2024 - CURRENT

Software Developer Intern (IT Automation) - Signify

- Automating the **detection of potential threats** to the **IP** of certain products
- Creating scripts and automating workflows to identify, report, and mitigate risks

01/01/2024 - 17/11/2024

Software Developer - Vrije Universiteit Amsterdam

Project 1:

- Developed a Django-based UI to streamline the submission process for <u>CEUR-WS</u> proceedings. This drastically reduced the submission time, eliminating the previous manual method.
- Designed and implemented the automated submission system that **reduced the submission processing time** by 50%.
- Developed a scalable solution to automate the submission process on with the CEUR-WS website which currently hosts 3,677 volumes.
- Minimized human error by automating data validation, resulting in a higher accuracy rate of submissions.
- Developed a second UI leveraging the OpenReview API to scrape data from the platform and **cross-check user submissions**.

Project 2:

- I am developing the **front end** for the Rolo-tutor project, **a chatbot-based educational tool**, using **React**.
- · My tasks involve:
 - Integrate **Microsoft Oauth 2.0 authentication** to enforce user authentication before accessing the chatbot.
 - Implement a user-friendly interface to support dynamic interactions, including feedback modal forms.
 - Create a dashboard for developers to visualize student feedback.

01/09/2022 - 01/01/2024

Teaching Assistant - Vrije Universiteit Amsterdam

Courses: Computer Programming, Computational Thinking for Coders, Introduction to Python Programming, Web Technology, Information Management for CS, Programming for Economists, Project Collective Intelligence, Fundamentals of Adaptive Software

- **Customized** lab sessions based on student **needs** and **learning styles**, using Kahoots, Mentis (*interactive learning*), and mini-lectures to enhance student engagement and understanding (*targeted knowledge delivery*).
- Consistently received **positive feedback** from students who felt they learned valuable skills, contributing to their overall satisfaction with the course.
- **Developed** and **maintained** course materials, including slides, Kahoots, Menti's, and Jupyter Notebooks, to support effective teaching and learning.
- Addressed challenges by simplifying complex concepts for novice programmers, confidently leading classes of up to 30 students, and providing prompt, constructive feedback on assignments.
- Recognized for being flexible and firm with students, ensuring a supportive learning environment while maintaining high standards in grading and beha vior.

01/02/2022 - 21/02/2023

External Relations Commissioner - Study Association STORM

- Conducted **market research and** secured new sponsors, leading to a 700% increase in sponsorship revenue.
- Organized events such as workshops, with an increased attendance of 35%, and a Career Fair, which had **250** attendees.
- Implemented **marketing campaigns** across email, Instagram, Facebook, and Canvas, resulting in a **50%** boost in social media engagement.

- Established partnerships with companies like **Uber**, **KPN**, **Adyen**, and others to foster long-term collaboration.
- Successfully led the **annual Career Fair**, managing **event logistics** and **negotiating partnerships** with top-tier companies.

EDUCATION AND TRAINING

01/08/2023 - CURRENT Amsterdam, Netherlands

Master's degree - Artificial Intelligence Vrije Universiteit Amsterdam

Website https://vu.nl/nl

01/09/2019 - 01/08/2023 Amsterdam, Netherlands

Bachelor's degree - Computer Science Vrije Universiteit Amsterdam

Throughout my coursework and hands-on experience, I have gained proficiency in a range of areas, including:

- 1. Operating Systems
- 2. Software Design
- 3. Data Structures and Algorithms
- 4. Machine Learning
- 5. Applied Logic

Additionally, I have completed a minor in Data Science, which has allowed me to develop skills in:

- 1. Data visualisation
- 2. Data analysis
- 3. Statistical modelling

I have applied these skills to various projects, including analysing large datasets and building predictive models to make informed decisions.

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THESIS

Transformers for NLP

• Full Title: Investigating the Impact of Recurrent Connections on Pre-Trained Transformer-based Models for Modeling Long-Range Dependencies in Sequential Tasks

For my thesis, I have built a transformer generator model. As a general overview, I had to replicate the autoregressive transformer model from scratch, based on this article. The transformer was built in Python, using the library PyTorch. My main task was to investigate the impact and tradeoffs of including a recurrent layer (GRU) in a pure self-attention architecture. I have analyzed the possible impact of the inclusion of this layer into the generated output as well as the performance of the model.

RELEVANT SKILLS

Coding Skills

- · Web Development: HTML, CSS, JavaScript, Node.js, Django
- · Machine Learning: Python, Pytorch
- Programming Languages: C, C++, Scala, Java
- · Database Management: MySQL, SQLite3
- Software Frameworks: Docker
- · Data Analysis & Visualization: Tableau

LANGUAGE SKILLS

Mother Tongue

Romanian

Foreign Languages

French - C2 English - C2 Spanish - B2

VOLUNTEERING

01/10/2019 - 01/02/2022 De Boelelaan 1081

Study Association STORM

- 1. Part of the marketing and promotion team
- 2. Co-chair of HoReCa Committee
- 3. Secretary and member social activities team, organising sports & social activities

30/10/2021 - 30/10/2021

Benelux Algorithm Programming Competition 2021

• Logistics & Event Operations Support: Played a crucial role in setting up the coding environment for participants, ensuring a smooth and organized competition. Assisted with logistical tasks, including moving fridges and beverages, and aiding with event scheduling to facilitate a successful competition experience for all participants.