

Asen Dotsinski



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Bulgarian

SUMMARY

I am a quick learner, ambitious to a fault and I never back down from a challenge. I am looking to use my AI research talent for the good of humanity. I am currently interested in the mechanisms behind LLM jailbreaking and counteracting them to safeguard (open-weight) AI against malicious use.

EDUCATION

- | | |
|--|-------------------------------|
| University of Amsterdam | Amsterdam, Netherlands |
| <ul style="list-style-type: none">◆ Master of Science – MS, Artificial Intelligence, graduate in July◆ Average grade: 8.9/10◆ Main author of a reproducibility study in LLM interpretability¹ and co-author of a paper on deep-fake detection²◆ Main author of a jailbreaking method achieving up to 97% success rate with one line of code³ | 2024 – 2026 |
| Eindhoven University of Technology | Eindhoven, Netherlands |
| <ul style="list-style-type: none">◆ Bachelor of Engineering – BE, Computer Science◆ Average grade: 9.2/10◆ Key courses: Honors Research Project, Process Mining, Responsible Machine Learning | 2021 – 2024 |
| High School of Mathematics “Doctor Petar Beron” | Varna, Bulgaria |
| <ul style="list-style-type: none">◆ Key modules: IT, Software Development, Mathematics, English | 2016 – 2021 |

EXPERIENCE

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|--|--|
| Freelance machine learning engineer [C++, Python, PyTorch, CUDA, Docker]
<i>Motive Engineering</i> | Remote
2024 – present |
| <ul style="list-style-type: none">◆ Implemented a swarm optimization algorithm entirely on CUDA, achieving a 17x speedup over previous solutions while halving the lines of code used◆ Created a combined DevOps/MLOps CD flow using Docker and pre-commits, reducing deliverable size tenfold and ensuring code reproducibility◆ Designed, implemented and optimized multiple object collision algorithms◆ Refactored legacy code to improve maintainability and use C++ 17 best practices | |
| Back-end developer [Ruby on Rails, Rspec, PostgreSQL, TypeScript]
<i>Drieam</i> | Eindhoven
2023 – 2024 |
| <ul style="list-style-type: none">◆ Maintained and expanded the backend of a Rails Ed-Tech application integrated with Canvas◆ Applied test-driven development using Rspec and wrote API contracts in OpenAPI | |

¹ Dotsinski, Asen, *et al.* "On the Generalizability of 'Competition of Mechanisms: Tracing How Language Models Handle Facts and Counterfactuals'." TMLR 2835-8856 (2025) ([arXiv:2506.22977](https://arxiv.org/abs/2506.22977))
² Thakur, Udit, *et al.* "CLaRE: CLIP with Latent Reconstruction Errors for Generated Face Detection." Proceedings of the 1st ACM Workshop on Deepfake, Deception, and Disinformation Security. 2025.
³ Dotsinski, Asen and Eustratiadis, Panagiotis. "Sockpuppeting: Jailbreaking LLMs Without Optimization Through Output Prefix Injection." arXiv preprint. ([arXiv:2601.13359](https://arxiv.org/abs/2601.13359))

Embedded developer [C/C++, Bash, FreeRTOS, Jira, Scrum]**Best****WeFabricate****2022 – 2023**

- ◆ Designed and developed real-time firmware for a fleet of 150 embedded IoT controllers of dispensing systems for international clients like Walmart and Lidl
- ◆ Implemented live data analysis and calibration of sensors, with automatic error correction
- ◆ Configured and maintained a production-ready Linux-based environment using Bash scripts
- ◆ Led and managed a small software team (3-5 people) using Jira and Scrum

C++ developer [C++, Git]**Veldhoven****Dimenco****2021 – 2022**

- ◆ Developed and tested a C++ library for automating calibration tasks with an industrial robotic arm

Robotics teacher, content developer [LEGO Mindstorms]**Bulgaria****Robopartans****2019 – 2021**

- ◆ Taught children aged 7-15 how to build and program robots using the LEGO EV3 Mindstorms kit
- ◆ Developed materials and lessons for the online curriculum the company uses at filcasts.com

EXTRACURRICULAR

Founder, president and trainer**Varna, Bulgaria****Debate club “Odessos”****2018 – 2021**

- ◆ Founded the only active debate club in the region, trained and coached multiple national and international winners

Founder, lead engineer**Varna, Bulgaria****Laboratory for Innovative Technology (LIT)****2017 – 2019**

- ◆ Founded a student team that introduces students to Arduino programming and hardware technologies, while also creating solutions for local businesses and governments

Competitive C++ programmer**Varna, Bulgaria****High School of Mathematics “Doctor Petar Beron”****2013 – 2019**

- ◆ Participated in over 30 national and international C++ coding competitions
- ◆ Received 2 sponsored invitations for the National Informatics Training Camp
- ◆ Finished twice in the top 10 national yearly rankings

SPONSORSHIPS & AWARDS

- ◆ 7 certificates of excellence and multiple top-3 placements in national informatics competitions
- ◆ 1st place in the international science fair “Ot vinta!” in 2018
- ◆ “Judges’ Choice Award” in Junior Achievements’ competition “Rising Stars” in 2019
- ◆ Over 10 top-3 placements in national debate competitions

LANGUAGE SKILLS

- ◆ Bulgarian (native tongue)
- ◆ English (C2) – IELTS Overall Band Score 8.5/9
- ◆ Russian (B1)

HOBBIES

- ◆ Effective Altruism (EA); reading, engaging with arguments, attending conferences
- ◆ Playing board games and TCGs
- ◆ Political activism