Adam Deryło

📞 +48 698 608 344   ✉ a.m.derylo@gmail.com   in linkedin.com/in/adamderylo   ⦿ github.com/aderylo

Education

Technical University of Munich   Oct. 2024 – Ongoing
Masters of Informatics   *Munich, Germany*
- Best technical univeisty in Germany according to the QS rating.

Warsaw University   Oct. 2020 – Jul. 2024
Double degree: BSc in Computer Science & BSc in Cognitive Science   *Warsaw, Poland*
- Top rated CS undergraduate program in Poland according to QS ranking.
- 1st-year modules: Functional Programming, OOP, C, Introduction to AI, Linear Algebra.
- 2nd-year modules: Adv. Algorithms, Databases, Computer networks, Web Apps, Statistics, NLP.
- 3rd-year modules: Distributed systems, Concurrency theory, Security of computer systems.
- Rector's scholarship for academic achievements.

2SLO High School   Sep. 2017 – May. 2020
Computer Science, Mathematics & Philosophy profile   *Warsaw, Poland*
- Top-4 rated high school in Poland according to Perspektywy ranking.
- Laureate of the 2018 Polish Olympiad in Philosophy for high school students.
- Scholarship for outstanding academic achievements.

Experience

Amazon   Jun. 2024 - Sep. 2024
SWE Intern   *Madrid, Spain*
- NintAI applied science team responsible for ML models faciliating image search at Amazon.
- Added several features to the ML inference platofrm as well as developed Web App for it.
- Built and deployed the UI infrastructure from scratch using AWS CodePipeline and CodeBuild, ensuring seamless integration with SIGV4 authentication and resolving CORS issues.
- Implemented end-to-end tests using NightwatchJS and Selenium Grid, and integrated them into the CI/CD pipeline, establishing cross-account VPC connectivity between test workers and build services.
- Utilized AWS CDK for infrastructure as code, alongside AWS services such as API Gateway, CloudWatch, S3, DynamoDB, Lambda, and many more to deploy and monitor the platform.

Taiwan Semiconductor Manufacturing Company   Jul. 2023 - Sep. 2023
Software Engineering Intern — Pytorch, Huggingface, Scikit-learn, Python   *Hsinchu, Taiwan*
- AI Application and Platform Development Team responsible for the automation of fab processes.
- Developed custom BLIP2 based model for photomask defect classification and dataset bootstrapping.
- Prototyped the application of Stable Diffusion models for rapidly bootstrapping rare photomask defect data.
- Ranked in the top 8 out of 80+ Interns in the final competition.

Goldman Sachs   Jun. 2022 - Aug. 2022
Summer Analyst | Redis, Java, Procmon, Golang   *Stockholm, Sweden*
- Global reconciliations team, daily processing of 80+ mln trade & position data entries.
- Collaborated on optimizing caching performance and reliability of data loading processes.
- Worked on extending database performance limits with intelligent cache priming based on Change Data Capture.
- Developed Redis cache monitoring tool suite to speed up emergency debug and development cycle.

ReSpo.Vision   Jul. 2021 - May. 2022
Software Engineer Intern | Python, Postgre, Git, SQL, Pytorch   *Warsaw, Poland*
- 40+ sprints under the Scrum development framework in a rapidly growing team.
- Worked on a back-end implementation of a betting hints generator that withstood 100k API calls daily.
- Created a deep learning NLP module using architectures such as BERT.
- NLP module tackled the problem of context-dependent noun declination in Slavic languages.

Bain & Company   Mar. 2021 - Apr. 2021
Spring Intern | Nielsen, Ipsos, Bain's overlay for MS Office   *Warsaw, Poland*
- Supported a consulting team in the area of wood market data analysis.
- Collaborated on a business case under the supervision of a dedicated mentor.

PROJECTS

Bachelor thesis at NVIDIA | *C++, CUDA, CMake, Python*   **Oct. 2022 - Jun. 2023**
- Worked with NVIDIA DALI team on accelerating image decompression in ML astronomy workflows.
- Contributed module to the open-source DALI library, improving the performance of the FITS decoder.
- Devised a testing & profiling pipeline to allow for benchmarking various CUDA kernel optimizations.
- Showcased the result by rewriting NASA Coronal Hole Semantic Segmentation pipeline and achieving 70% speedup.

C interpreter | *Haskell, GHC, Cabal, BNFC*   **Apr. - Jun 2023**
- Created an interpreter for a C-like language, called Latte.
- Implemented support for scoping, functions, multidimensional arrays, classes and many more.
- Utilized monad transformers to create various features such as garabage collection mechanism for the language.

Minix OS | *C, Quemu, Bash, rsync*   **Apr. - Jun. 2023**
- Developed various custom features for the Minix OS, including modifying the kernel.
- Implemented theoretically optimal scheduler, improving the performance of the system.
- Devised an add-on for the virtual file system which introduced file exclusivity mechanism.

BEST hacking league | *React, Python, OpenAI Playground*   **Apr. 2023**
- Earned 2nd place in a hackathon organized by the Board of European Students of Technology.
- Developed a voice assistant for Warehouse 4.0 workers.
- Extended LLM knowledge base by leveraging a NoSQL database, improving query handling for warehouse layout.
- Devised intelligent prompting for a voice assistant, improving context awareness and user experience.

Distributed alerting system | *Grpc, Google Cloud Platform, Python*   **Nov. 2022 - Jan. 2023**
- Developed scalable microservice system for monitoring services and running complex alerting routines.
- Utilized GRPC, PubSub queues, Cloud SQL and other tools to satisfy SLO requirements for 10k services.
- Project supervised by Google employees.

Goldman Sachs EMEA 2022 Hackathon | *Python, Flask, Git*   **Nov. 2022**
- Achieved first place during a challenging 24-hour hackathon.
- Designed and implemented a web portal aimed at enhancing Goldman Sachs' recruitment efforts.
- Implemented a stock market simulation game as one of the features.
- Contributed to the development of a 3D render for a physical token with a link to the portal.

N-dimensional labyrinth solver | *C, Valgrind, Cmake, Git*   **Jun. 2022**
- Developed a high-performance traverser for multidimensional mazes/large graphs.
- Utilized most memory efficient solution by incorporating 2-bit BFS algorithm.
- Implemented arbitrary large integer type to facilitate enormous labyrinths and showcase memory efficiency.

Concurrent Unix-like directory | *C, Pthreads, Helgrind, Cmake, Git*   **Jan. 2022**
- Implemented add-ons to the file system, which allowed for concurrent creation, deletion and movement of files.
- Utilized tailored-made readers-writers lock with Latest Common Ancestor writer locking.

Enhancing Splay Tree for pattern search | *C++, Catch2, Cmake, Bash, Git*   **Dec. 2021**
- Developed an algorithm for efficient search of patterns in DNA sequence.
- Utilized a splay tree data structure enhanced with attributes updated through lazy propagation.

EXTRACURRICULAR

Member, Bain & Company Champions Class 2023
2nd Place, PSDC 2020 debating championship, preliminary stage to World Schools Debating Championship.
Laureate, 8/1000+ in the 31st National Philosophy Olympiad

SKILLS

Programming Languages: Python, Java, C/C++, JavaScript, R, Ocaml, Go, SQL
Technologies: Git, Fedora/Ubuntu/Debian, Jira, Redis, Docker, Pydantic, React, Cloud Run
Natural languages: English (C2), Polish (Native), Spanish (B1)