# Adam Deryło

## **EDUCATION**

# Warsaw University

Double degree: BSc in Computer Science & BSc in Cognitive Science

Warsaw, Poland

- Top rated CS undergraduate program in Poland according to QS ranking.
- Rector's scholarship for academic achievements.

#### EXPERIENCE

# Taiwan Semiconductor Manufacturing Company

Jul. 2023 - Sep. 2023

Oct. 2020 - Ongoing

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 for context-dependent noun declination.

#### Projects

# Bachelor thesis with 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 $\mid C$ , Quemu, Bash, rsync

Apr. - Jun. 2023

- Developed various custom features for the Minix OS, which required modifying the OS kernel extensivly.
- Implemented theoretically optimal scheduler, improving the performance of the system.
- Devised an add-on for the virtual file system which introduced file exclusivity mechanism.

### 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.

## EXTRACURRICULAR

2nd Place, BEST Hacking league 2023 Hackathon

Member, Bain & Company Champions Class 2023

1st Place, Goldman Sachs EMEA 2022 Hackathon

Laureate, 8/1000+ in the 31st National Philosophy Olympiad

# SKILLS

**Programming Languages**: Python, C/C++, Haskell, Java, JavaScript, R, Ocaml, Go, SQL **Technologies**: Git, Linux, Jira, Redis, Docker, Pydantic, Huggingface, React, Cloud Run

Natural languages: English (C2), Polish (Native), Spanish (B1)