

Jakub Czajka

WORK EXPERIENCE

JUNE 2023 – PRESENT

Google, Warsaw, Poland

Software Engineer Tech Lead

NOVEMBER 2023 – MAY 2025

Software Engineer III (L4)

JUNE 2022 – OCTOBER 2023

Software Engineer II (L3)

I lead a team of around 2 people to develop a highly available, high throughput spatial scheduling system for the cluster management system Borg. It optimizes Google's fleet by recommending clusters where workloads should be scheduled. Highlights:

- Fix a bug manifesting across multiple systems which lead to workloads being placed in overutilized clusters.
- Consider power utilization signal in cluster recommendations.
- Change cluster recommendations to reduce inter-cluster network traffic by up to 90%.

Technologies: C++, GenAI, distributed systems.

JANUARY 2021 – APRIL 2022

Amazon, Gdansk, Poland

Software Development Engineer (L4)

I developed on-device processing engine for Amazon Alexa. The engine uses machine learning to process user's voice on many different Alexa architectures, often under heavy resource constraints.

Technologies: C++, low-latency programming.

JUNE 2020 – SEPTEMBER 2020

Amazon Web Services, Berlin, Germany

Software Development Engineer Intern

I researched and implemented a prototype of a user interface for SCRUM planning sessions.

Technologies: React, TypeScript, AWS.

JUNE 2019 – SEPTEMBER 2019

European Organization for Nuclear Research (CERN), Gevena, Switzerland

Software Engineering Intern

I developed a platform for self-teaching FESA - a real-time framework for controlling and monitoring particle accelerators.

✈ Warsaw, Poland

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ACADEMIC EXPERIENCE

WINTER SEMESTER 2022/2023

University of Warsaw, Warsaw, Poland

Teaching Assistant

Taught a module on testing distributed systems for a Distributed Systems course organized by Google. Oversaw student groups implementing the Paxos protocol.

OCTOBER 2017 – JANUARY 2021

AGH University of Science and Technology, Kraków, Poland

Bachelor's in Computer Science

- Final grade: 5.0 (GPA 4.71, top 10%).
- Multiple scholarships for excellent grades.
- Thesis: "Framework for distributed big volume data analysis from LHC ALICE experiment (CERN) using O2 software package".

PUBLICATIONS

- **J. Czajka**, J. Otwinowski, and J. Kitowski, "Non-Intrusive Data Inspection for Message-Based Systems", *Comput. Inform.*, vol. 40, no. 4, pp. 796–814, Dec. 2021. <https://doi.org/10.31577/cai.2021.4.796>.

PERSONAL PROJECTS

- [gym.git](https://github.com/gym) - HTTP interface for a database tracking gym progress. **Technologies:** HTTP Nginx server with shell scripts connected through fastCGI, Postgres.
- [gdrive_knife.git](https://github.com/gdrive_knife) - Swiss army knife for working with Google Drive. Provides commands for encrypting, archiving and uploading files. **Technologies:** Python, OAuth, Google Drive API, symmetric cryptography.
- [server.git](https://github.com/server) - Configuration files for many services deployed on a server. **Technologies:** Postfix, Dovecot, Postgres, fail2ban, Matrix and more.
- [metadata.git](https://github.com/metadata) - Metadata files (descriptions, hooks etc.) for the other git repositories. Contains many Ansible scripts for deploying other server's services.