

# Stanislav Kosorin

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## Education

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**Technical University of Berlin**, M.Sc. in Computer Science Apr 2024 - Present

- **Specialization:** Distributed Systems and Networking
- **Coursework:** Cloud Computing, Data Center Networks, Software-Defined Networking, Network Security, 5G/6G Software Networks, Compiler Design

**Technical University of Berlin**, B.Sc. in Computer Science Oct 2020 - Apr 2024

- **Final Thesis:** Evaluating Proactive Container Migration on the LEO Edge (Grade 1.0)
- **Coursework:** Algorithms and Data Structures, Distributed Systems, Networking, System Programming, Continuous Software Engineering, Functional Programming

## Experience

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**Google Summer of Code**, The P4 Language Consortium May 2024 - Aug 2024

- Demonstrated the application of P4 to preserve TCP connections during container migration with changing IP addresses
- Built an SDN controller in Python for managing the BMv2 software switch
- Developed a custom CNI plugin in Go, deployed as a DaemonSet, and provided scripts for automating container migration within Kubernetes
- Contributed to the P4 tutorials repository

**Software Engineer (Working Student)**, Cresta – Berlin, Germany Nov 2022 - Present

- Built a front-end job framework in React (Typescript) for configuring and scheduling internal workloads
- Contributed to the implementation of a scalable data processing pipeline using Go and Temporal
- Deployed Kubernetes services using Terraform, Helm, Flux, and other tools
- Built a Github Actions CI/CD pipeline for synthesizing voice conversations for end-to-end testing

**Software Engineer (Working Student)**, PTX tech – Berlin, Germany Nov 2021 - Nov 2022

- Built a multi-threaded processing pipeline using C/C++ (Qt5) including GPU offloading using CUDA
- Achieved a 10x speedup of 3D point cloud processing for simultaneous localization and mapping (SLAM)

## Projects

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### In-Memory Distributed Cache

- **Repository:** [github.com/stano45/hit-or-miss](https://github.com/stano45/hit-or-miss)
- Developed "Hit or Miss," a distributed key-value store in Rust with a master-partition server architecture
- Implemented a master server for connection management and request forwarding, and partition servers for data storage and command processing

### AsyncAPI Microservice Generator

- **Repository:** [github.com/Programmierpraktikum-MVA/AsyncAPI](https://github.com/Programmierpraktikum-MVA/AsyncAPI)
- Developed a high-performance Rust microservice generator from AsyncAPI specifications
- Led a team of seven students, coordinating project tasks and deadlines to successfully deliver the project on time

### Chrome Extension for IP Visualization

- **Repository:** [github.com/stano45/net-mapper](https://github.com/stano45/net-mapper)
- Developed "net-mapper," a Chrome extension coded in JavaScript that visualizes internet traffic destinations on an interactive global map