# **Tobias Pristupin**

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# Education

## Washington University in St. Louis - Expected May 2024

**BACHELORS OF SCIENCE IN COMPUTER SCIENCE AND MATHEMATICS** 

- GPA: 3.99/4.00
- Awards: John B. Ervin Scholar: \$240k Full ride scholarship with 1% acceptance rate
- Coursework: Systems Programming (A+), Operating Systems (A+), Parallel Programming (A+), Algorithm Analysis (A+), Artifical Intelligence (A+), Software Design (A+), Logic (A+)

# Work Experience & Projects \_\_\_\_\_

## **Optiver (In Progress)**

SOFTWARE ENGINEER INTERN

- Developed and deployed a real time trading compliance monitoring app, estimated to provide a value of \$100k+.
- Improved speed of a critical compliance pipeline by ~60% by optimizing data processing. Enhanced reliability of pipeline from 4 monthly failures to 0.

#### Stripe

SOFTWARE ENGINEER INTERN

- Improved min/p90 latency by 11% and 23% while keeping throughput constant by rewriting the service architecture, affecting every Stripe product.
- Directed a rollout to migrate 200 services in production across 60 teams to my new architecture.

#### Meta

**UNIVERSITY SOFTWARE ENGINEER INTERN** 

• Designed and implemented community building Android app that scales to 100k+ users.

## **Real Time Systems and Cybsersecurity Labs**

RESEARCHER

- Developed C++ framework for statistical analysis of Linux PMU performance counters. Submitted paper to ACM's Operating Systems Principles as an author. Waiting for acceptance.
- Designed my own programming language and developed a C++ interpreter and compiler for it. Wrote paper analyzing performance of various garbage collection algorithms.
- Reduced max latency of a real time system (CycloneDDS) by 5% by tuning message payload size in relation to the network stack configuration.

## Head Teaching Assistant For Systems Programming

**CSE DEPARTMENT** 

• Host weekly lectures, assist professor on course design, provide academic support to students. Elected by professors based on outstanding performance in the class.

# Volunteering\_\_\_\_\_

#### SErvin

PRESIDENT

- Restarted and lead a community service group of ~200 John B. Ervin scholars.
- Awarded volunteer of the year award by Black Power Blueprint.

# Skills \_\_\_\_

C, Java, Python, C++, C#, Linux, OS, Systems Programming, Low Latency, High Performance, Multithreading, Compilers, Arduino, Bilingual (Spanish and English), Self Taught

Menlo Park. CA 06/2021 - 08/2021

Washington University

2022-Present

St. Louis, MO

Chicago

NYC

06/2023 - 08/2023

05/2022 - 08/2022

08/2020 - 05/2024

Washington University

2021-Present

Washington University 01/2020 - Present