Tobias Pristupin

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Education

Washington University in St. Louis - Expected May 2024 *St. Louis, MO*
Bachelors of Science in Computer Science and Mathematics *08/2020 - 05/2024*

- GPA: 3.99/4.00
- Awards: John B. Ervin Scholar: $240k Full ride scholarship with 1% acceptance rate
- Coursework: Data Structures & Algorithms (A+), Discrete Math (A+), Linear Algebra I & II (A+), Probability & Stats (A), Systems Programming (A+), Operating Systems (A+), Parallel Programming (A+)

Work Experience & Projects

Stripe *NYC*
Software Engineering Intern *05/2022 - 08/2022*

- Improved min/p90 latency by 11% and 23% while keeping throughput constant for the main requests executor, affecting every Stripe product.
- Directed a rollout to migrate 200 services in production across 60 teams to my executor.
- Designed and proposed project to improve kubernetes server health checking

Facebook *Menlo Park, CA*
University Software Engineering Intern *06/2021 - 08/2021*

- Designed and implemented community building Android app that scales to 100k+ users. Used Firebase DB and Cloud Storage, Google NLP REST API, RxJava, Retrofit, Unit Testing.

Real Time Systems Lab *Washington University*
Undergraduate Researcher *2022-Present*

- Reduced max latency of a real time system (CycloneDDS) by 5% by tuning message payload size in relation to the network stack configuration.
- Identified sources of lock contention and reduced them by improving the synchronization approach, limiting time spent in kernel space and improving latency.

Head Teaching Assistant For Systems Programming *Washington University*
CSE Department *2022-Present*

- Elected by professors based on outstanding performance in the class
- Assist professor on course logistics, provide academic support to students, hold weekly lectures on course material

Lox Programming Language Research Study *Washington University*
Researcher & Developer *2020-2021*

- Developed an interpreter in C++ for the Lox Programming language as a personal project.
- Created a bytecode compiler and a stack based virtual machine for Lox as a research project.
- Implemented my own garbage collection algorithms based on multiple research papers. Benchmarked the algorithms and wrote a research paper summarizing my findings.

Volunteering

SErvin *Washington University*
President *01/2020 - Present*

- Restarted an inactive community service group within John B. Ervin scholars
- Directed multiple community outreach events with UnhousedSTL for a group of 30 scholars

Skills

Experience with C, Java, Python, C++, Linux, OS, Systems Programming, Compilers, Android Dev, Firebase, Arduino, Bilingual (Spanish and English), Self Taught