DAVID PEET

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EXPERIENCE

Compiler Software Engineering Intern — Huawei

Sept - Dec 2020 | C++, LLVM, OpenCL

- Standardized object file format by mapping proprietary format to ELF improving global data access **power efficiency by 66%**
- Implemented option passing system using metadata allowing **compiler backend** to **replicate state** of failing compilations
- Identified & **resolved compiler correctness issues** including incorrect function attribute propagation
- Proposed build system improvements including using precompiled header files, Ninja and lld, may **reduce build time by up to 50%**

Software Developer Intern — McAfee

Jan - Apr 2020 | C++, Bash, WinAPI

- **Profiled and optimized** McAfee product installers pinpointing performance bottlenecks composing **70% of install time**
- Prevented **99% of unnecessary device reboots** from the McAfee installer affecting **500+ million users**
- Enhanced UI **efficiency** and upgraded to newer Angular framework

Software Developer Intern — Axonify

May - Aug 2019 | Java, JavaScript, MySQL

- Led development of front end modules released to **100 000+ users**
- Implemented **15+ testable** and **maintainable** front-end components
- **Increased code coverage** of back-end services with unit testing using Mockito & JUnit

PROJECTS

Note Modules

Angular · Python · C++

- Enhances note taking with **code snippets & MD + Latex rendering**
- Prevents data duplication with **pre-processing** allowing **inline embedding of notes** at build time
- Leverages **parallel processing** & IPC to improve **testability** and separation of concerns

Memory Sanitizer

C++ · C · Make

- Provides efficient memory leak reporting **>10 000% faster** than **Valgrind**
- Facilitates lightweight & rapid **leak checking for large applications** with **minimal performance overhead**
- Software shim facilitates **use on production builds without recompiling**
- Provides **insight into compiler optimizations** by displaying true size of allocation including compiler induced padding
- Utilizes **POSIX compliant** syscalls for OS compatibility
- Utilizes **static linking** separating library and client **heap space** preventing the sanitizer from recording it's own memory consumption

SKILLS

C++ | C | Java | JavaScript | Bash | Python | SQL | Rust

Git | Linux | Make | LLVM | OpenCL | Angular | Docker | Node.js

EDUCATION

University of Waterloo

Bachelor of Computer Science
Junior / 3rd Year

Sept 2018 - Present

GPA - 3.83/4.0 | 87.15%

- Data Structures: 96%

ACHIEVEMENTS

Term Dean's List
>87% term average

Track & Field Provincial Bronze
3rd / 10 000+ athletes @ OFSAA

Mike Moser Award Recipient
Graduating athlete top student (1000+ students)

Waterloo County Scholarship
Outstanding academic performance

Presidents Scholarship of Distinction
97% entrance average

Athlete of the Year
MVP in 3 sports (1000+ students)

Ontario Basketball Gold Medalist
OBA Cup (100+ teams)

INTERESTS

- Operating System & Compiler Design
- Computer Security
- Distributed Systems
- Strategy Board Games
- Basketball, Volleyball, Track & Field