DAVID PEET

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EXPERIENCE

Compiler Software Engineering Intern   Huawei 🔗

Sept - Dec 2020   ⚙ C++, LLVM, OpenCL

- Standardized object file format by converting proprietary format to ELF improving **power efficiency** of global data access by **66%**
- Implemented option passing system using metadata allowing **compiler backend** to easily **replicate state** of failing remote compilations locally
- Identified & resolved compiler correctness issues including **incorrect function attribute propagation**
- Proposed build system improvements **reducing build time by >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**
- Leveraged **Chromium Embedded Framework** to facilitate **message passing** between install engine and UI

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
- Improved back-end service **code coverage** using Mockito & JUnit

PROJECTS

Note Modules 🔗

⚙ Python · Angular · C++

- Pre-processes Markdown **preventing data duplication & combating anti-patterns** in the Markdown language specification
- Locally hosts **RESTful endpoints using Flask** for file-system queries **eliminating network latency**
- Enhances note taking experience with blazing fast **deep searching, pre-processing** extending Markdown language & **Latex rendering**

Memory Sanitizer 🔗

⚙ C++ · C · Make

- Facilitates lightweight **memory leak checking** with **minimal performance overhead** (**>10 000% faster** than **Valgrind**)
- Leverages **Software Shim** design enabling use on **production builds without recompiling**
- Provides **insight into compiler optimizations** by displaying true size of allocations including compiler induced padding
- Conforms to the POSIX system call interface for **cross platform compatibility**
- Avoids tracking own memory consumption by utilizing static linking to **separate library and client heap space**

SKILLS

C++   C   Python   JavaScript
Bash   Java   SQL   Rust

Git   Linux   Make   LLVM
OpenCL   Angular   Docker

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 (10 000+ students)

🎓 **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