DAVID A. BADIEI

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SUMMARY

An award-winning and self-driven computer science student and a natural problem-solver with a great sense of time management and multitasking skills. Extensive experience in programming in a multitude of programming languages as well as working as a front-end and back-end developer. Initiated and significantly contributed to the development of the graphical user interface in a new analytical instrument. Helped fix many bugs and added many enhancements to the instrument software as a Software Developer Intern. Experienced in embedded systems programming and interested in learning about emerging technologies such as artificial intelligence.

WORK EXPERIENCE

Software Developer Intern

PerkinElmer Inc., Vaughan, ON

📅 May. 2023 – Sept. 2023

- Worked on a future version of Syngistix, a Windows application that controls scientific instruments. Worked on the front-end UI elements, which used C# and WPF, and the back-end code, which was mainly implemented in C++. I fixed multiple bugs in the software and added new features such as new buttons and textboxes that were requested by the team.
- Helped fix a back-end memory leak bug that was unsolved for several months. Found both a temporary hardware fix, and a more permanent software solution to this bug.
- Ran meetings that taught some of the developers the unique features of Go, such as Go's channels.

Industrial R&D Internship Program

PerkinElmer Inc., Vaughan, ON

📅 Jul. – Sep. 2021

- Developed a Linux-based graphical user interface using a touch display that is used to control instrument functions and display a user-friendly diagnostic tool for real-time readback of hardware status and operating conditions. Used the C programming language and the LVGL graphics library to create the interface.
- Ran meetings with other members of the team to receive advice and feedback on the interface, also took feature requests from the rest of the team.
- This graphical user interface is now being used in a new scientific instrument, called NexION 2200.

Freelance Programming Tutor
📅 Summer 2019 – Summer 2020

- Provided private tutoring/mentoring sessions focused on programming in Python for novice programmers.

EDUCATION

Computer Science, BSc
York University, Toronto, ON
📅 2022-present

- Received top grades.
- Participates in extra curricular groups alongside taking six courses, such as the York University Robotics Society and the Computing Students Hub.

Ontario Secondary School Diploma
Father Bressani CHS, Vaughan, ON
📅 2018 –2022

- Honours student (average of 95%)
- Top student across all subjects
- Multiple consecutive awards
- A consistent performer

TECHNICAL SKILLS

- Fluent in languages: C, C++, R, Java, JavaScript, Go, x86 and RISC-V Assembly, Verilog, and Python.
- Knowledgeable in SQL, Git, and Docker.

OTHER EXTRACURRICULAR ACTIVITIES

- Developed an operating system with a 32-bit protected mode kernel and FAT 16/32 file system, GUI, and device drivers with USB support. Currently working on a rewrite that is 64-bit, more portable, and supports modern features such as UEFI booting.
- Developed an Arduino-based portable game console with manual keypad control, sound, and LCD display (a grade-10 computer technology project).
- Developed several desktop applications, such as a text editor, image viewer, calculator, PDF reader, and media player (personal projects during grades 7-8).

AWARDS

- Grade 11 - Computer Science Award for the highest grade.
- Grade 11 - Physical Education Award
- Grade 10 - Computer Science Award for the highest grade.
- Grade 8 - History Award
- Grade 8-12 – Honour Roll Student

REFERENCES

Available upon request.