Anas Alhadi

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Education

Dalhousie University Jan. 2021 – May. 2025
Bachelor's in Computer Science - First Class Honours - GPA: 4.1/4.3 Halifax, NS

Experience

Research Assistant Apr. 2024 – May. 2025
Dalhousie University Halifax, NS

- Worked under Dr. Samer Lahoud, an IoT networking expert on improving metadata compression in IoT packets.
- Developed the ability to effectively disern the contents of documentations, RFC standards and research papers.

Undergraduate Teaching Assistant Aug. 2023 – Dec. 2024
Dalhousie University Halifax, NS

- Managed 400+ student's git repositories incorporating the use of bash scripts in the process.
- Instructed on Systems topics including C programming, basic Computer Architecture and UNIX operations.
- Provided in-person guidance to students, ensuring clarity and comprehensiveness.

Projects

KeBaB | *C++, SDSL Library* Aug. 2024 – Present
Paper Code

- K-mer based breaking for finding Super Maximal Exact Matchings in a DNA reference.
- Collaborated with experts to implement improved algorithms used in the identification of certain patterns in the human genome.
- Assisted in the Testing and Debugging of a relativley large code base.
- Evaluated the performance of our implementation.

Dynamic Context Updating in SCHC | *Python3, OpenSCHC, Scapy* Jan. 2025 – Present
Paper Code

- Conducted a study that significantly enhanced the performance of an compression protocol
- Introduced a novel dynamic rule updating algorithm for the SCHC protocol and integrated it into existing implementations of the protocol.
- Built an emulation testbed that was used to evaluate performance of the implementation under extereme network stress.

Advanced Data Structures | *GoLang, Python3* Aug. 2023 – Apr. 2024
Contact Code

- Collaborated with a classmate to implement and analyze non trivial data structures.
- Implemented: Splay Trees, Van Emde Boas trees.
- Evaluated performance by stress testing the Data structures and compared results against the theoretical limits.

Technical Skills

Languages: C/C++, Rust, Java, Python3, SQL, JavaScript
Developer Tools: Scapy, Git, Docker, WireShark, Makefile, GDB
Frameworks:: Axum, Flask, Espresso, JUnit, Nodejs, HTMX
Markup Languages: LaTeX, Markdown, HTML, CSS

Awards

Sexton Scholar: Awarded each semester to students with a 3.85 or higher GPA, achieved 6 times.

Dean's List: Awarded each semester to students with a 3.7 or higher term GPA, achieved 4 times.

Oman MoHE Scholarship: Awarded to the top performing highschool students in the country, includes 4 years of paid university tuition.