

Alexander Kamil Diab-Liu

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EDUCATION

Bachelor of Electrical and Biomedical Engineering (2nd year)

McMaster University

Sep 2021 - Apr 2027

Hamilton, Canada

SKILLS

Scripting/Programming: Python | C | C++ | Linux OS (Bash) | Windows OS (Powershell) | SQLite3 | MATLAB | JSON

Engineering: Multimeters | Oscilloscopes | Waveform Generator | Raspberry Pi | Autodesk Inventor (CAD) | Circuit Design

Technical: Automation | Hardware/Software Debugging | Computer Architecture | Data Structures and Algorithms

Utilization: JIRA | Confluence | Docker | Jenkins | Microsoft Office | Google Workspace | GitHub

Languages: English (Native) | French (Bilingual) | Arabic (Limited Working Proficiency)

Soft Skills: Problem Solving | Curious Mindset | Critical Thinking | Innovative Solutions | Communication

EXPERIENCE

Advanced Micro Devices

May 2023 - Present

Data Center GPU Validation Engineer (Co-op)

Markham, Canada

- Developed [Python](#) and [Ansible](#) scripts to expedite the setup of single root I/O virtualization [virtual machines](#) in Microsoft Hyper-V and the [Linux](#) KVM Hypervisor, reducing deployment times by 70% and enhancing operational efficiency
- Led successful cross-functional initiatives with [agile methodologies](#) to package the [provisioning](#) software for [cloud deployment](#), enabling seamless access to critical applications and services across the organization
- Conducted RAS error injection tests and effectively debugged issues with [root cause isolation](#) techniques
- Developed and documented customizable [automated virtualization](#) test cases for the MI300X Data Centre chip and added specific features to optimize their execution as a part of the team's DevOps strategy
- Automated machine learning models and training script implementation on virtual machines with [docker](#) and [Jenkins](#)

Hermes Aerospace Corporation

Jan 2023 - Apr 2023

Data Visualization Engineering Intern

Remote

- Utilized [Python](#) to retrieve, clean and efficiently segment raw drone data, ensuring its accuracy for further analysis
- Created a powerful dashboard-style program that simulated a 3D [visualization](#) of the retrieved data, providing valuable insights and enabling stakeholders to understand complex datasets more effectively
- Enabled seamless integration of data using Git version control in Visual Studio Code

LinkClicks

Jun 2022 - Sep 2022

Software Engineering Intern

Remote

- Developed a robust [REST API](#) and [GUI](#) using [Python](#), [Django](#), [HTML](#), [JSON](#), and [SQL](#) to enable seamless integration between LinkedIn and the other LinkClicks applications (Google, Meta, Snapchat, Twitter, Reddit)
- Implemented a secure and intuitive user [authorization](#) process, facilitating the subsequent storage of the access token into the company's database for future reference
- Enabled the creation and retrieval of ad campaigns directly from the LinkClicks ad manager, streamlining the ad management process for users by over 110%

McMaster University Faculty of Engineering

Apr 2022 - Jul 2022

Engineering Physics Research Assistant

Hamilton, Canada

- Co-authored a [technical](#) scientific publication regarding on-site microfluidic technologies and their applications in diagnosing RNA-based viruses, published in the MDPI Biosensors Journal in 2023
- Aided in the [research](#) and [design](#) of a wearable biomedical device with the capabilities to stimulate acupuncture points using non-invasive energy waves

PROJECTS

Gamification Clinic: Gamified Stroke Rehabilitation

Mar 2021 - Sep 2021

Engineer

Hamilton, Canada

- Engineered a sensor-based software with [pressure sensors](#) and a [raspberry pi microprocessor](#) aimed at increasing patient compliance during stroke rehabilitation through [PyGame](#) and other gamification techniques in [Python](#)
- Accepted to the McMaster University Incubator for Health Innovation, Commercialization, and Entrepreneurship

AWARDS/CERTIFICATIONS

- Dean's Honour List** - McMaster University, 2022
- Engineering Research Experience Award** - McMaster University, 2022
- Queen's Programming Challenge Grand Prize** - Queen's University, 2021
- Licensed Digital Marketing Master** - International Institute of Digital Marketing, 2021