Alex Moica

Toronto, ON, Canada | alex@alexmoica.com | 613-322-7342
www.alexmoica.com | www.linkedin.com/in/alexmoica | www.github.com/alexmoica

SUMMARY

Software engineering graduate with 2 years of professional experience and a solid foundation in popular programming languages, web technologies, databases, and frameworks. Developed creative solutions to real-world problems, such as building highly reliable legal software to improve the accessibility of the justice system, 4D pathfinding for lunar rovers, wireless power transmission to sensors embedded in bridges, and a MERN (MongoDB, Express.js, React, Node.js) course for 100+ high school students.

EDUCATION

Bachelor of Engineering (Software Engineering)
McMaster University | 2017 - 2023

EXPERIENCE

Development Lead
SGAC | June 2023 - Present
- Led the development of pathfinding algorithms for autonomous lunar rovers, with a focus on demonstrating the efficiency and collision avoidance benefits of 4D LIDAR in rover swarms.
- The project was accepted for presentation at the International Astronautical Congress 2023.

Software Developer Co-op
Clio | January 2022 - August 2022
- Developed Clio's Outlook add-on following SCRUM methodology with a team of 4 developers, enabling clients to seamlessly file millions of emails to Clio's management platform.
- Designed and implemented an endpoint feature for selective re-filing of individual emails, enhancing user control and addressing a critical user concern.
- Investigated, identified, and resolved the top 20 most prevalent bugs reported for the Clio Outlook add-on, leading to enhanced performance and an improved user experience.

Full Stack Course Developer
CreationCamp | September 2021 - April 2022
- Developed and taught a 4-month long full stack web development course for a class of high school students, covering HTML, CSS, JavaScript, MongoDB, Express, React, and Node.js.
- Designed, developed, and taught web development workshops to 100+ high school students.

Cloud Software Developer Intern

SOTI | May 2021 - August 2021

- Migrated the backend framework for the Cloud Management System solution to .NET, resolving dependencies, addressing library issues, and writing full test coverage for 84 different projects.
- Implemented application-side caching, reducing SQL server calls by over 90% per minute.

President

McMaster Engineering Society | March 2020 - March 2021

- Led a 28-person team in managing a $750,000 budget to enhance student education and support various areas such as wellness, advocacy, events, and engineering culture.
- Advocated on behalf of over 5,500 students to McMaster University, adjudicatory bodies, and provincial/federal organizations regarding legal, academic, and social issues.

PROJECTS

Utrition (2023): Open source project that allows users to track their progress towards their health goals. Users can upload a picture, speak, or type out what they ate in natural language, and Utrition provides all the nutritional data of the meal and saves it in the user's profile. The profile contains statistics and data visualizations to assist users in tracking their nutrition goals. **Stack:** Python, Flask, JavaScript, React, HTML/CSS, AJAX, Tensorflow, Git

NooTab (2023): A minimalist new-tab extension for Firefox and Chrome that offers a customizable layout and seamless access to search, calendar scheduling, and note-taking. **Stack:** HTML/CSS, JavaScript, Git

Questly (2022): Web application for middle school teachers to deliver computer science education. It provides an online classroom management system, grade-specific modules, assessments, walkthroughs, progress tracking, and grade reporting. **Stack:** Python, Django, PostgreSQL, HTML/CSS, JavaScript, Git

Ebook Genesis (2021): Python bot that finds and downloads ebooks from IRC channels using existing repositories and Direct Client-to-Client sub-protocol. One of the only open-source IRC ebook bots. **Stack:** Python, Bash, Git

alexmoica.com (2020): Personal professional website created to enhance internet presence and showcase skills to potential employers. **Stack:** HTML/CSS, JavaScript, Git

OTHER

Technical Skills: Python, Ruby, Java, JavaScript, HTML, CSS, React, Vue.js, Node.js, Django, Ruby on Rails, SQL, PostgreSQL, MySQL, MongoDB, Docker, Linux (Ubuntu/Debian), REST API, Git, GitHub Actions, CI/CD, PyTest, Jest, RSpec, Jira, ROS2

Languages: English (Native), Romanian (Fluent), French (Limited Working Proficiency)