Joshua **Dall'Acqua**

MATHEMATICS AND COMPUTER SCIENCE

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Summary

Currently enrolled at McGill university majoring in Mathematics and Computer Science. Looking to expand skillset past backend engineering in hopes of building a career in a more mathematically driven area of tech. Passionate about the intersection of math, computer science and software looking to apply my drive and problem solving abilities in these areas to exciting projects. Love to work with a team; I feel most at home when I am surrounded by people who care about the same things as me!

Education

High School Diploma
STRATHCONA COMPOSITE HIGH SCHOOL (COMPLETED)

Edmonton, Alberta
Sept. 2017 - June. 2020

- Honours with Distinction
- AP progam

B.S. in Honours Mathematics and Computer Science (In Progress)
MCGILL UNIVERSITY

Montreal, Quebec
Sept 2020 - April. 2024

- Current CGPA: 3.94

Work Experience

PerkUp
BACKEND ENGINEERING INTERN

Remote / Montreal, Quebec
May. 2021 - Present

- Research, engineer and implement new features for the platform
- Collaborate with other frontend and backend engineers
- Interact directly with customer service team to efficiently resolve client issues
- Find solutions under pressure for time sensitive critical bugs
- Monitor and contribute to logging/alerting infrastructure

BlasBerry Orchard
ORCHARD WORKER

Edmonton, Alberta
July - Sept. 2020, May - Aug. 2021

- Finding creative solutions to problems with limited resources
- Off site work such as product delivery and pickup
- Ensure the grounds stayed clean and professional
- Safe operation of heavy machinery

Technical Skills

Computational and Software:

- Extensive experience working with Golang to build server-side web applications utilizing technologies such as gRPC + protocol buffers, GCP hosting services and no SQL databases.
- Passion for the functional programming paradigm strong knowledge of Haskell, Ocaml, F and Elm
- Unix enthusiast; daily use of Linux for over 2 years, constantly exploring new distributions
- Scientific computing / data analysis using Python with plans in the future to learn Julia
- Use of GIT version control in both a professional environment as well as on personal projects
- Basic understanding of lower level languages through course work with C and personal projects in Rust

Mathematical:

- Love for abstract algebra currently focusing on modules, rings and groups
- Intermediate level understanding of Probability theory and its applications
- Computer Science related maths: Algorithmic analysis, information theory, graph theory, data structures
- Single and multivariate calculus both theory and application
- Mathematical analysis involving constructions of the reals, various theorems on sequences, limits

Extracurricular Activity

Side Projects (See GitHub for more details)

- Personal dashboard CRUD app with an Elm frontend and Go backend self hosted on a raspberry PI
- Automated plant watering system using an Arduino, soil moister sensor and water pump
- 3D fractal render made with Rust and OpenGl using the glium library

Blitz Coveo AI Competition
COMPETITOR

Montreal, Quebec
Jan 14 - Jan 15. 2022

- Use knowledge in Artificial Intelligence to compete against other teams of Quebec university students. Format was a 2D multiplayer mini game in which teams built AIs that would fight and try to finish with the highest score.