






OLIVIER VADIAVALOO

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EDUCATION

BSc Specialization Computing Science | UNIVERSITY OF ALBERTA

SEPT 2018 – APR 2022

Major GPA: 3.90 | Dean's Honor List: 2018-2022 | Academic Achievement Award: 2019-2022

Relevant Courses: Database Management Systems, Web Applications & Architecture, Software Engineering



SKILLS

Programming Languages: Java, Python, C, C#, JavaScript, HTML, CSS, SQLite3

Tools & Technologies: Git, Heroku, Firebase, Pandas, Amazon Athena, Amazon S3, Django

Others: Relational Databases, Program Synthesis, Complexity Analysis, Problem-solving, Object-oriented Design



EXPERIENCE

Research Intern | UNIVERSITY OF ALBERTA | See project

MAY 2021 – SEPT 2021

- Developed three games-related benchmarks in **Python** for **programmatic strategy synthesis** based on **stochastic search**, under the supervision of Dr. Levi Lelis.
- Conducted and reported results from **more than 500** experiments on the **Beluga cluster** using **SLURM scripts**.
- Increased by **at least 5%** the strength of synthesized solutions using optimization strategies, such as **Bayesian optimization**.
- Generated graphs using **Seaborn** to demonstrate the benefits of a strategy triage system during program synthesis.
- Built a synthesizer using **Interpreter pattern** and **object-oriented design**.



PROJECTS

Social Distribution | See project

SEPT 2021 – DEC 2021

- Worked in a **scrum** team to create a peer-to-peer, **distributed social networking** application partially based on Activity Pub.
- Built a **fluid user-interface** from scratch using **Bootstrap**, **HTML**, and **CSS**.
- Automated deployment of application on **Heroku**.
- Assisted in writing an **API** using **Django** to allow for seamless **peer-to-peer** connections with other hosts.

BookBox | See project

SEPT 2020 – DEC 2020

- Created an **Android application** to provide a platform for quick and easy book exchanges amongst users.
- Capitalized on **Firebase's ML KIT** to allow users to search for book details by scanning ISBNs using their phone cameras.
- Stored and performed **CRUD** operations on book details and user information using **Firestore**.