
Jonathan Hubermann

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Objective

Logical-minded and adaptive second year software engineering student with web, embedded systems, and computer software development experience, seeking a Summer 2021 Internship to gain practical knowledge, experience, and further exposure to the field.

Education

- September 2019 - Present **Bachelor of Engineering – Software Engineering Coop**
Concordia University – Montreal, QC
- Member of the Institute for Co-operative Education
 - CGPA: 3.99/4.30
- September 2017 - May 2019 **DEC – Computer Science and Mathematics (Sciences)**
Vanier College – Saint-Laurent, QC

Work Experience

- September 2020 - Present **Software Development Engineer Intern**
Lockheed Martin – Montreal, QC
- Member of Rotary and Mission Systems division on an Agile team focusing on developing data collection and analysis tools for naval warships
 - Implement Combat Management System services into Human-Machine Interfaces using new and existing Java infrastructure
 - Define software requirements and model their design and architecture
- November 2017 - September 2020 **Web Developer**
CommDesign – Montreal, QC
- Full-stack developer on graphic design and marketing agency's team
- Responsible for website end-to-end configuration (hosting services, cPanel, MySQL, WordPress, SEO)
 - Collaborated with designers by improving UI/UX through the creation and modification of templates, PHP, and CSS files
 - Integrated additional website functionalities such as eCommerce platforms (WooCommerce, Shopify), POS system-syncing APIs, site multilingualism, logins
- August 2018 - June 2019 **Teaching Assistant (TA)**
Vanier College Department of Physics – Saint-Laurent, QC
- Provided hands-on, one-to-one aid with theoretical and practical understanding of Mechanics and physics concepts to students during lectures
 - Assisted students in conducting laboratory experiments and validated data collection

Technical Skills

Programming Languages and Tools:

- Java | Javascript | Python | HTML | CSS | Flask | Processing
- Git | IntelliJ | Eclipse | Linux | Adobe Creative Suite | LaTeX | Microsoft Office
- Agile methodology

Proficient Languages:

- English | French | German | Hebrew

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Projects

iSight

Mobile application completed within twenty-four hours during McGill Artificial Intelligence Hackathon 2020

- Deployed a real-time skin lesion disease detection app using a RESTful service on Flask and classified patients based on their risk factor using deep ensemble uncertainty modelling
- Awarded prize for Second Overall and Best Social Good project

RUOK (Are You OK)

Desktop-emulated mobile application and external inertial measurement unit (IMU) device with embedded microcontroller that improves bicycling safety through preventative features and real-time functionalities

- Developed and deployed an algorithm that detects a user falling from their bike through real-time accelerometer and gyroscope data collection and analysis
- Designed and incorporated an interactive sobriety and alertness test to determine user's capacity to operate a bike during nighttime hours
- Translated the sobriety test to Javascript, created a website to host the interactive test, and surveyed and collected data from inebriated individuals to measure its performance and effectiveness

hubjon.com

Personal website developed entirely with previously unknown programming languages, frameworks, and tools in effort to acquire new web development skills and become familiar with more tools

- Designed a custom and responsive web template and website that simulates a file-management environment and learned to use 3D modelling software in order to create UI components
- Built a back-end with Python and a Flask framework and integrated a MySQL server and database, logging management, user accounts and restricted features, third-party APIs, JS and AJAX scripts

Ragdoll Physics Simulation

Desktop GUI simulation of 2D classical mechanics physics and the kinematic effects of forces and accelerations

- Modelled and simulated real-world physics system dynamics using an algorithm that interprets the forces acting on a given object and calculates changes in translational and rotational motion
- Implemented the Verlet integration algorithm for modelling position changes and the Separating Axis Theorem algorithm for collision detection between ragdoll objects

Volunteer Experience

January 2018 -

Tutor

June 2019

Vanier College Tutoring and Academic Success Centre — Saint-Laurent, QC

- Assisted students in understanding math and physics concepts
- Created a positive and encouraging learning environment
- Followed up with students on progress and offered additional support

March 2018

Science Fair Judge

Montreal Regional Science and Technology Fair — Montreal, QC

- Judged high school students' design/experiment projects, evaluated on specified criteria, commented and suggested for further improvement

Awards & Accomplishments

- Winner of the Octas "Prix en Jeunesse" Action TI Award, an award for the best youth in technology in Quebec
- Concordia University Faculty of Engineering & Computer Science Innovation Scholarship
- Winner of Second Overall and Best Social Good project at McGill AI Hackathon
- Concordia University Award for Outstanding Achievement In Electrical & Computer Engineering
- Certified in Standard First Aid and National Lifeguard (NLS), Snowboard Instructor (CASI)