

Joshua Lorincz

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I am a self-driven software engineer with experience in mobile, full-stack, and desktop application development. My passions are entrepreneurship, pathfinding research, and problem-solving in my community, yet my goal is always to learn.

SOFTWARE DEVELOPMENT SKILLS

Java, Swift, Node.js, AWS (including EC2, S3, and RDS), MongoDB, Redis, SQL/PostgreSQL, R, JavaFX, HTML, CSS, JavaScript, Flutter, Dart, Python, UML, GIT, Linux, Bootstrap

EDUCATION

University of California, Berkeley (Graduation: June 2024)

Berkeley, CA

West Point Grey Academy (Graduation: June 2020) *High School Diploma*

Vancouver, BC

GPA: 97/100

Relevant courses: AP Statistics, AP Computer Science, AP Calculus BC, AP Macroeconomics, AP Microeconomics

Thompson Rivers University (Open Studies)

Kamloops, BC

Relevant courses: COMP 2231: Data Structures and Algorithm Analysis, COMP 3411: Operating Systems

WORK EXPERIENCE

Nov 2020 - Present

Full Stack Software Engineer Intern, DealEngine

Berkeley, CA

- Working to create ETL pipeline including incremental extraction from data partners and data standardization
- Building highly adaptable backend Node.js REST API that powers core technology including big data analysis

Sep 2015 – Feb 2018

Referee, Vancouver United Football Club

Vancouver, BC

- Small-sided soccer referee for local soccer club
- Learned the importance of professionalism and communication

Jul 2015 – Aug 2017

Teacher's Assistant, Tech Up Kids

Vancouver, BC

- First worked as a volunteer (2015-2016) and then became a paid teacher's assistant (2016-2017)
- Taught kids ages 10-13 the basics of programming in summer camps

SOFTWARE DEVELOPMENT PROJECTS

Aug 2018 – Present

Research Projects

Pathfinding Considering History

- Alongside Dr. S. Gopalakrishnan, Professor at UBC, developed a shortest path algorithm that takes an agent's history into consideration when calculating travel times/costs
- Completed proof showing when the algorithm is as efficient as Dijkstra's algorithm

Multi-Agent Pathfinding Algorithm

- Created multi-agent pathfinding algorithm that increases the use cases of prior technologies and theoretically allows for improved efficiency according to current research
 - Applications include warehouse management, interdependent robotic arms, and controlling automated machines on large road networks

Feb 2018 – Nov 2019

Websites

Groupplus

- Team management [website](#) for sports teams that allows for increased player-coach interaction off the field
- Created using JavaScript, CSS, HTML and Bootstrap on the front-end, NodeJS for the server and PostgreSQL for the database. The server is hosted using AWS and uses AWS EC2, AWS RDS and AWS S3.

Anomalous.be

- Developed [game](#) that encourages out of the box thinking
- Created using JS, CSS, HTML and Bootstrap on the front-end, NodeJS for the server, and MongoDB as well as Redis for the long-term and temporary storage. The site is hosted through AWS. Accessible upon request

Sep 2017 – Dec 2017

Desktop Application

Intelligent Group Maker

- Developing [intelligent group creation software](#) that allows for high levels of customization
- Created using Java with JavaFX, and utilizes custom algorithms developed using principles of AI

Oct 2017 – Present

Apps

Skipt

- Led team to create platform that helps businesses manage schedules and lines due to COVID-19
- Includes cross-platform Flutter app, Express/Node.js backend, and React front-end

Bartr

- App developed for both iOS and Android using Flutter as part of entrepreneurial venture Bartr
- Bartr allows travelers to map the prices offered by currency exchange stores
- Created the [currency picker package](#) for flutter

PictureStory App

- Developed iOS [app](#) using Swift that allows users to create movies from daily pictures
- Uses AI to track contours in the face enabling automatic face alignment and seamless video creation, unlike competitors which only allow for the use of manual video alignment

iOS Games

- Developed three games available on the IOS App Store - [Block Maze](#), [200 Degrees](#), [Swirl](#)
- Learned design of user interfaces as well as developing geometric algorithms

WPGA Scheduling App

- Developed [school scheduling app](#) available on the iOS App Store
- App currently used for that 60,000 times a month

May 2017 - Present

Other projects

Reco-sidebar: A chrome extension that uses the reddit API to serve as a comment section for any webpage

Machine Learning Projects: Built neural networks for small data-driven machine learning projects in both Java and R

Shell Scripting: Created shell scripts automating tasks such as toggling desktop icons and the chrome tab bar

R Visualizations: Created numerous visualizations of real-world data sets using the R programming language

Java Projects: Projects include automation such as creating nametags for a 650+ person conference

ACADEMIC/ LEADERSHIP EXPERIENCE

Feb 2019 – Jun 2020	Founder/President, WPGA Tech Council	Vancouver, BC
Jun 2019 – Jul 2019	Launch X Program	Ann Arbor, MI
Sep 2018 – Jun 2019	Science World Future Science Leaders Program	Vancouver, BC
Jul 2018	SHAD Program	Waterloo, ON
Sep 2018 – Dec 2018	Instructor, WPGA Junior School Coding Club	Vancouver, BC
Oct 2016 – Jun 2020	Co-President, Junior Achievement Business Club	Vancouver, BC

ADDITIONAL

Awards: Hackathon Winner (RAM Hacks 2020): Winner of the Federal Reserve Bank challenge and 2nd Place in challenge hosted by Altria for most innovate intelligent agent, JA Business Competition: Winner nationally 2019, Winner provincially 2018 and 2019, Certificates of distinction: Canadian Computing Contest, Cayley Contest

Scholarships: 2020 PVG Tuition Award: Highest academic average, 2020 BC District/Authority Scholarship: Excellence in Computer Science, 2020 BC Achievement Scholarship, 2020 Schulich Leader Scholarship: Canada's top STEM scholarship (Declined offer)

Clubs & Organizations: Physics Olympiad, Model UN, Math Challengers Club, TA for school math club, Business Club

Community Service: TechUpKids camp counselor, Volunteer helping shoebox project, Apple Festival Volunteer