

Martin Au-Yeung

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EDUCATION

University of British Columbia

Expected Graduation: May 2023

BSc. Combined Major in Computer Science, Life Sciences, Earth & Ocean Sciences – Biology major student before 2020

SKILLS

Languages: TypeScript, JavaScript, Python, Go (Golang), Java, C++, C, SQL, Dart, HTML, CSS

Frameworks & Libraries: React, Node.js (Express, Passport, TypeORM), Flutter, Next.js, Swing, Tailwind

Tools/Tech: Git, Linux, Heroku, Firebase, GCP (Compute Engine, NLP, Cloud Functions), AWS (EC2, Redshift), Docker

EXPERIENCE

BlackBerry

September 2021 – Present

Software Engineer Intern

Remote – Waterloo, Ontario

- Constructing new backend system for internal cloud console application using Go (Golang) from Ruby

Hölm Metrics

May 2021 – August 2021

Software Engineer Intern

Remote – Calgary, Alberta

- Created from scratch and deployed to stakeholders on AWS EC2, React and Node.js in-house improvement of company's flagship product, 50% ahead of the scoped time, eliminating 3rd party company costs (\$70 per client to \$0)
- Architected SSO authentication system with JIT provisioning and created REST API endpoints in Axios to handle authentication requests, reducing user login time by 300% (15 sec to 5 sec) and customer onboarding time by 100%
- Developed question limit and progress tracking features for React and SQL wellness app to first major customers within my 1st week of starting, achieved by maintaining a swift development pace and without working overtime
- Went beyond intern responsibilities by facilitating hiring for full-time software engineers, trusted by managers to generate challenging technical questions to screen and express hiring recommendations for 2 final-round candidates

UBC Science Undergraduate Society

July 2020 – April 2021

Web Developer

Vancouver, British Columbia

- Ideated and redesigned Society's webpage UI for better accessibility to 8300+ UBC Science students in 2019
- Went beyond role to lead a React framework transition that decreased site loading times by 500% (10 sec to 2 sec)
- Optimized Security Headers in PHP and migrated site to HTTPS to increase overall site security grade from a D to a B

PERSONAL PROJECTS

hubble

Top 3 Best in Show Project @ Google Cloud Demo Week • Google Cloud COVID-19 Hackathon Fund (\$5000 & Mentor)

- Led team of 5 in developing a full-stack, social connection app for Android and iOS, 10 months after starting CS major
- Designed and constructed a serverless data scoring algorithm to suggest compatible friends using NLP entity analysis
- Ideated UI on Figma and personally built entire front-end application with friend connection and messaging system
- Applied data caching solutions discussed with Google Software Engineer mentor to save GCP usage costs by 200%
- Live Demo to Google: <https://youtu.be/-GaKWMUCaaM?t=4511> Event Link: <https://goo.gle/GoogleCloudDemoWeek>

ML-based Predictive Modeling of COVID-19 Vaccination Uptake

Hoffmann-La Roche Research Solution Awards – 3rd Prize (\$400) • Top 15 Finalist out of 150+ teams

- Collaborated in a team of 4 to create an ML/AI research paper to help with COVID-19 (DOI: 10.2196/preprints.33231)
- Implemented XGBoost ML algorithm in Python to predict COVID-19 vaccination uptake with 59% test accuracy
- Generated choropleths in Python to highlight US counties with abnormally low vaccination rates and identified the top 10 key sociodemographic factors out of 70+ that drive personal decisions to receive the COVID-19 vaccine
- Worked closely with a York University professor to publish manuscript in journal for the 2021 Big Data Challenge in charge of writing 40% of the manuscript to communicate key findings based on methods and results effectively

Statstify

- Created an interactive CRUD React web-app to present Spotify users listening statistics to peak 120 monthly users
- Devised and developed an individualized recommendation algorithm to suggest "throwback" songs to users
- Implemented features to allow users to create playlists based on displayed statistics and share them on social media

TripSuite

- Collaborated in a 24hr hackathon team of 4 to create a travel planner using MongoDB, Express, React and Node.js
- Created user authentication system using Passport and BCrypt to allow for multi-user support and increased security