Hector Carrillo

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EDUCATION

INSTITUTO POLITÉCNICO NACIONAL
B.A.Sc in Computer Engineering
Jan 2021 - May 2025 | Mexico City
Computer Science College (ESCOM)

UNIVERSITY OF BRITISH COLUMBIA
B.Sc. Computer Science
Sep 2018 - Dec 2019 | Vancouver, BC

UNIVERSIDAD PANAMERICANA HIGH SCHOOL
Grad. May 2018| Mexico City, Mexico
Physics and Mathematics Emphasis

LINKS

AC2O Project

RELEVANT COURSEWORK

Principles of Software Construction (OOP, UBC)
Introduction to Microcomputers (UBC)
Linear Algebra (UBC)
Calculus I, II and III (UBC)
Introduction to Machine Learning (Ongoing, Stanford via Coursera)

SKILLS

TECHNICAL
Experienced or worked with:
Java (2 yrs / Academic Use) • Python (1 yr, Project Application) •
GraphQL(Professional Use) • Javascript (Node.js env, 1 yr, Professional Use) •
AWS (Professional Use)• Git (2 yrs) • HTML/CSS
Familiar:
LaTeX• MySQL(Academic Use) • React.js (Project Application) • MATLAB (Focused on Machine Learning / On-ramp certificate)• C++ (Competitive Programming Use)

SOFT SKILLS
Problem Solving (HackerRank Intermediate badge) • Creative Solutions • Fast-paced learner

LANGUAGES
Spanish (Native)
English (Proficient)
German (Beginner)

PROFESSIONAL EXPERIENCE

KONFIO | Software Engineering Intern
March 2020 – August 2020 | Miguel Hidalgo, Mexico
- Implemented and optimized web scrapers using JavaScript (Node.js environment) deployed to AWS for the data mining division.
- Improved reliability of the team´s API increasing uptime from 60% - 70% to 95% on average by creating backup mechanisms such as circuit breakers and cache optimization.

FREELANCE | Junior Backend Developer
January 2021 – May 2021
- Worked with a new startup company (founded May 2020) to implement and design their new AWS back-end architecture.
- Implemented REST APIs to provide various services for the company such as authentication, payments and email sending endpoints.
- Designed, deployed and maintained a NoSQL Database using DynamoDB (AWS) with GraphQL endpoints. It has been tested with 100+ people in the beta phase of the project providing reliable and secure access (using Cognito authentication) to data.

CONTENT-OH! | Junior Backend Developer
May 2021 – Present
- Implementing and designing AWS architecture to manage content and product data for vendors. This will allow them to sell in more than 100 international digital retailers such as Walmart and Amazon seamlessly.
- Designed and maintaining a SQL Database based on an Excel of around 750k data entries, which I analysed and condensed 40% of it, allowing faster access through REST APIs.

ACTIVITIES | PROJECTS

ATMOSPHERIC CLOUD CHAMBER OF THE OKANAGAN | Software and Electronics Lead
Dec 2018 – Sep 2019 | Kelowna, BC
Responsible for developing a control and telemetry system on board of a physics experiment using a RaspberryPi and Python to handle the automation and sensor data retrieval. Launched to the stratosphere in partnership with the Canadian Space Agency and CNES France.

HEAT ROBOTICS | Vice President and Founder
Jan 2019 - May 2019 | Kelowna, BC
Founder of the first software and robotics team of UBC Okanagan campus. Responsible for recieving more than 4000 CAD in funding to operate the team and helping 15+ students fund their trip to the UBC Vancouver Hackathon. This club was the precursor of the current Computer Science Union Club on the same campus.

AWARDS

2019 Canadian Stratospheric Balloon Experiment Design Challenge Winner Project
• Canadian Space Agency, Centre National d'études Spatiales & SEDS Canada
2018 Outstanding International Student Award
• University of British Columbia
2018 National Robotics Champions
• FIRST Robotics Competition
2017 Zhang Heng Award for Engineering Design, 3rd Place
• FIRST Global Competition