

# Aradhya Bansal, (587) 436-0571

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**Technologies:** Javascript (React, Node, Express), Python, Java, C# (Unity), Dart (Flutter), MySQL, MongoDB, Firebase, GCP

## EDUCATION

**BESc, Software Engineering** *The University of Western Ontario* | Cum. GPA: 4.0/4.0 (95%) September 2018 – April 2022  
E.V. Buchanan Faculty of Engineering National Scholarship (\$30,000), Farida & R.K. Rahemtulla HBA Scholarship (\$15,000)

### Harvard Business School Online

June 2019

CORE: Credential of Readiness, Pass with High Honors

**Relevant Coursework:** Data Structures and Algorithms, Discrete Math, Probability and Statistics, Software Design (UML)

## WORK EXPERIENCE

### STEP (Student Training in Engineering Program) Intern

May 2020 – August 2020

Google – New York City, NYC

### Software Developer

October 2019 - Present

LTV Numbers – Pasadena, CA

- Created architecture on the **Google Cloud Platform** that leverages a **serverless backend model**, **Pub/Sub** queue, and **Cloud SQL** to automate and 10x the processing speed of large database ingests
- Developed scalable automation scripts using Node.js and Selenium to scrape the web for required data upon user onboarding
- Architected and coded the data processing pipeline for subscription products using the Stripe API by implementing OAuth, webhooks, and historical data ingest; shipped the requested feature to all business clients

### Software & Systems Integration Engineering Intern

May – August | 2018, 2019 (8 Months)

General Dynamics Mission Systems – Calgary, AB

- Reduced setup time by 30% for systems integration testing across the organization by designing and developing software application GUIs for smart display units in **C#/.NET** that verify Serial Port **RS-232**, **RS-242**, and **CAN Bus** connectivity
- Independently designed & executed interoperability test cases identifying mission critical bugs in tactical communication systems
- Analyzed and debugged **asynchronous method calls** using multithreading in applications used by over 150 engineers
- Improved CPU and Memory efficiency by 25% by developing a solution using **Mutexes** to solve a software application bug
- Increased project savings by ~\$2K by using **Linux**, **Secure Shell Protocol**, and **PuTTY** to improve product firmware

## PROJECTS

### Voice Enabled Nutrition Assistant – *macroS (1<sup>st</sup> Place Overall at Hack Western 6)*

- Used **Dialogflow** to train a **natural language processing** model to handle unique user intents
- Developed **cloud functions** with **Actions on Google** and deployed then to firebase for extreme scalability and speed
- Connected voice client to backend API to return full nutritional breakdowns of convoluted queries in <3 seconds

### Full Stack Face Recognition Web Application - *Smart Brain*

- Designed, developed, and deployed a **full stack** web app that performs facial recognition using the Clarifai API
- Used **Node.js** with **Express** to write backend server providing user registration and password authentication

## LEADERSHIP ACTIVITIES & INTERESTS

### Organizer/Web Developer *Hack Western 7*

March 2020 - Present

- Using MERN stack to develop custom application form to be used by 2500+ applicants and live site to be used by 500+ hackers
- Responsible for backend routing, user authentication, data management, frontend development, and deployment

### President *Western Founder's Network*

September 2018 – March 2020

- President of the largest technology/e-ship club on campus (250+ members) – hired and managed an executive team of 60+ students
- Organized a team summer retreat in Toronto to establish club mission, goals, and motivate VPs to take new initiatives
- Spoke in front of 130+ passionate students at the annual general meeting which helped lead to a 20% increase in club membership

### Captain/Assistant Coach *Henry Wise Wood Jr./Sr. Boys Basketball Team*

October 2015 – March 2018