

# Vasu Gupta

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[www.vasug.space](http://www.vasug.space)

Calgary, AB

## Experience

### Software Developer @ Popin Inc.

May 2022 - Aug 2022

- Developed the core features of an events app being used by UofA students.
- Full-stack web development using: Next.js, Tailwind CSS, Firebase, CI/CD using Vercel.

### Student Researcher @ University of Alberta

May 2022 - Aug 2022

- Measured the motions of stars in young clusters using Gaia satellite data to characterize the turbulence in interstellar gas around them.
- Wrote tools in python to perform theoretical and mathematical computations on 3D vector fields.

### Software Developer Intern @ Beta Healthcare International Ltd.

May 2021 - July 2021

- Created and deployed a (Google Forms like) web application to handle form submissions and approvals.
- Used the MERN stack (MongoDB, Express, React, Node.js).
- Deployed application on local company servers.

### Software Team Member @ AlbertaSat

October 2019 - January 2021

- Developed MCU software for the Ex-Altia 2 satellite.
- Developed drivers implementing serial communication protocols such as i2c, SPI, UART.
- Collaborated with the software team on GitHub (Created and handled PRs).
- Represented AlbertaSat at various events including; Engineering Open House event and "Let's Talk Space".

### Electrical Team Member @ UAlberta Space Design Group

March 2020 - August 2021

- Canadian Reduced Gravity Experiment Design Challenge (CAN-RGX), SEDS Canada.
- Project: Determining Response Differences to Microgravity in Male and Female Bioengineered Cartilage Tissue.
- Assisted in designing an electrical system for the project, created electrical schematics, and presented progress reports to SEDS, CSA, and NRC representatives.

## Awards & Certifications

- Machine Learning. Stanford Online, Coursera | June 2019
- President's Award Scheme, Gold Award. Awarded by his excellency Uhuru Kenyatta (President of Kenya) | July 2016
- Acoustic Guitar, Grade 8. University of West London | Feb 2016
- Faculty of Engineering Academic Excellence Scholarship | Sept 2017
- University of Alberta International Country Scholarship | Sept 2017
- International Student Scholarship | Sept 2017

## Education

### University of Alberta

Sept 2017 - Apr 2022

Bachelor of Science, Double Major in Computer Science and Physics.

**Relevant coursework:** Intelligent Systems (AI), Algorithms & Data Structures, Software Engineering, Operating System Concepts, Computer Systems & Microprocessor Architecture, Numerical Methods, Machine Learning.

## Skills

C/C++	Java	Python	TypeScript
Android App Development	Express.js	Node.js	
Next.js	React.js	MongoDB	Firebase
Embedded Software	Linux	SQL	Git
AWS	Docker	OpenGL	

## Projects

### Client-Server Architecture Implementation

An implementation of a single-threaded server and client application. Programmed in C using the linux socket API.

### ML model comparison

Final project for CMPUT 466 (Machine Learning) at the University of Alberta. Comparing the performance of three different ML models on a credit card fraud detection task.

### KrowdTrialz

Final project for CMPUT 301 (Intro to Software Engineering) at the University of Alberta. An Android application for publishing and contributing data to statistics experiments.