

# ARUNAB SINGH

☎ (778) 917-5748

✉ [arunabsandhu07@gmail.com](mailto:arunabsandhu07@gmail.com)

in [in /in/arunab-singh-1a0603205/](https://in.linkedin.com/in/arunab-singh-1a0603205/)

🌐 [arunabsingh.netlify.app](https://arunabsingh.netlify.app)

🔄 [ArunabSingh](https://github.com/ArunabSingh)

## EDUCATION

### British Columbia Institute of Technology

Grad. May 2023

*Diploma, Computer Systems Technology (Computer Science); Co-op Student*

- **Clubs:** Senior Student Mentor for Coding Club (2022); Vice-President for CodingForAll Club (2023)

## WORK EXPERIENCE

### British Columbia Institute of Technology

Jan 2023 – Present

*Research Assistant*

*Vancouver, BC*

- Built Neural Networks in **Python** with **PyTorch** that detect Mobile Malware with 96.4% accuracy using features extracted from reverse engineered **Android** App APKs.
- Reduced processing times by 10x through recursive implementation of **Java** methods for extracting essential features from binary manifest and Dex files within Mobile APKs.
- Conducted an in-depth analysis of various Mobile Malware Analysis and Detection Techniques by synthesizing and summarizing numerous research articles.

### Realtor.com

Jan 2022 – Aug 2022

*Software Engineer Intern*

*Vancouver, BC*

- Developed and maintained testing environments by utilizing **Jenkins**, **Docker** and **Shell Scripts** that ran automated integration tests with every PR and QA build.
- Successfully integrated testing environments in over 10 microservices, resulting in a reduction of bugs and crashes in both production and QA environments by 40%.
- Designed and implemented **AWS Serverless** functions using tools such as **Lambda**, **Step Function** and **API Gateway** to automate recurring tasks used in the onboarding of 30,000+ customers.
- Created modular Page Object Models in **Typescript** using **Playwright** and utilized them in writing UI integration tests with over 80% code coverage.
- Achieved runner-up out of 80 submissions in the company's annual hackathon by collaborating with a team to implement a video chat feature using **React** and **Twilio**.

### British Columbia Institute of Technology

Sep 2021 – Nov 2021

*Math Peer Tutor*

*Vancouver, BC*

- Answered students' questions about the lecture and clarified tough concepts.
- Supported students for the following classes: Calculus I, Calculus II, Elementary Statistics, Linear Algebra.

## PROJECTS

### 2D Chess / [Github](#)

- Built a 2D Chess game in **Java** with **Object Oriented** design principles and an attractive interface with **Swing**.

### NBA Predictor / [Github](#)

- Developed an NBA game winner prediction model with 65% accuracy using **Python** and **Scikit-Learn**.
- Optimized feature selection using cross-validation and feature importance analysis.

### CampMonk / [Github](#) / [Website](#)

- Created a campground review platform with **JavaScript** and **NodeJS**.
- Integrated **Passport** middleware, **Mapbox** API for map display, and **Cloudinary** for media storage.
- Developed a robust **REST** API using **Express** and implemented CRUD operations with **MongoDB**.

## TECHNICAL SKILLS

### Languages

Java, Python, JavaScript, Typescript, C/C++, SQL, MongoDB

### Web Development

Django, React, Node.js, Express.js, REST, GraphQL

### Tools/Technologies

AWS, Jenkins, Docker, Git, Splunk, Split.io

### Testing/Debugging

Jest, Mocha, JUnit, Playwright, Selenium, Postman