

ARUNAB SINGH

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TECHNICAL SKILLS

Languages	Java, Python, JavaScript, Typescript, C
DBMS	MongoDB, DynamoDB, SQL, Firebase Database
Libraries/Frameworks	React, NodeJS, Express.js
Tools/Technologies	REST, GraphQL, Jenkins, Docker, Git
Testing/Debugging	Jest, Mocha, JUnit, Playwright, Selenium, Postman

EXPERIENCE

British Columbia Institute of Technology

Jan 2023 – Apr 2023

Research Assistant (Part-time) — Java, Android Studio, Python

Vancouver, BC

- Built Neural Networks to detect Mobile Malware using features extracted from reverse engineered Mobile App APK.
- Created a recursive method to parse and read APK's binary Manifest file, successfully extracting essential metadata and components such as permissions and intent-filters stored within XML nodes.
- Conducted an in-depth analysis of various Mobile Malware Analysis and Detection Techniques by synthesizing and summarizing numerous research papers.

Realtor.com

Jan 2022 – Aug 2022

Software Engineer Co-op — AWS Serverless, Typescript, React, DynamoDB, Playwright, Jest

Vancouver, BC

- Developed and maintained testing environments by utilizing Jenkins, Docker and Shell Scripts that ran automated integration tests with every PR build. Successfully integrated these environments in over 10 microservices, resulting in a reduction of bugs and crashes in both production and QA environments.
- Designed and implemented AWS Serverless functions using tools such as Lambda, Step Function and API Gateway to automate recurring tasks and improve efficiency.
- Created modular and scalable Page Object Models with Playwright to utilize them in writing UI integration tests for multiple repositories.
- Achieved runner-up in the company's annual hackathon by collaborating with a team to implement a video chat feature on the dashboard.
- Actively participated in agile scrum events, contributing relevant ideas and questions, participated in code reviews.

British Columbia Institute of Technology

Sep 2021 – Oct 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 | Java, Swing GUI

Aug 2022

- Built a 2D Chess game in Java with Object Oriented design principles and a user-friendly interface with Swing.

SkillMeet | React, JavaScript, Firebase, Material UI

May 2021

- Collaborated to create a social media app that connects people based on their technical skills and hobbies.
- Responsible for writing API calls to Firebase, creating database schemas and performing CRUD operations.

CampMonk | NodeJS, Express, MongoDB, JavaScript, Heroku

July 2021

- Built a yelp like review platform for campgrounds with CRUD functionality.
- Constructed a secure REST API using Express and Passport Middleware for authentication and authorization.
- Integrated Mapbox API for location mapping and added image upload and media storage capabilities.

EDUCATION

British Columbia Institute of Technology

Jan 2021 - May 2023

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

- **Clubs:** Senior Student Mentor for Coding Club (2022), Vice-President of the Coding-4-all Club (2023)