# Saurav Banna

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## EDUCATION

University of British Columbia

BSc, Computer Science - GPA: 94.3%

Vancouver, BC Sept 2021 - May 2025

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, TypeScript, HTML/CSS

Tools / Frameworks : React, Redux, Git, Github, Web Audio API, Figma, Command Line, GreenSock

## WORK EXPERIENCE

# Undergraduate Research Assistant

Vancouver, BC

ReSeSS Research Lab, University of British Columbia

May 2022 - Sept 2022

- Conducted research in a team of 3 to find novel ways to automatically decompose monolithic applications into microservices
- Developed new features for a full stack web application that could extract and visualise microservices using React and Python Flask along with another researcher
- Analysed dependency data from 10 sample apps to find microservice candidates and compare to developer decompositions
- Gained extensive experience with full stack web development, Python scripting, Command Line, Virtual Machines, and Ubuntu

#### Projects

#### Music Maker

musicmaker-9c83c.web.app

- Developed a full stack web application using React for users to create and share music on a social media platform
- Allows users to play 5 different instruments on an interactive keyboard, download / upload their notes as JSON, upload songs, and listen to and follow other users
- Worked with React, JavaScript, TypeScript, HTML/CSS for the user interface, Web Audio API for audio, and Firebase for database storage, retrieval, and user authentication
- Used an optimized project structure and wrote well-formatted, readable code with best practice React design patterns to increase future adaptability

PostIt

github.com/sauravbanna/PostIt

- Designed and developed a Java Swing desktop forum application as part of coursework
- Carried out a Test Driven Development process with an extensive test suite using JUnit 5 while learning Java Swing independently
- Implemented core OOP principles and concepts learnt in class such as maintaining a clear project structure, prioritizing cohesion, writing thorough code documentation, and reducing code repetition through inheritance
- Achieved a grade of 97% for this project

#### Space Defense (Android App)

github.com/sauravbanna/SpaceInvaders

- Created an Android application inspired by the game Space Invaders
- Independently learnt and worked with the Android SDK in Java from scratch, including working with ImageViews, Activities, Immersive Mode, and Gesture Detection
- Prioritised maximum compatibility and performance with all devices through SDK level checking, and all screen sizes through scaling

# EasyToMako (WaffleHacks 2022 - Winner: Best Use of Data)

- Collaborated in a team of 4 to create a prototype app that scans the user's fridge and suggests recipes based on available ingredients from database of 500,000 recipes
- Designed the prototype's UI and simulated user interactions using Figma

# Interests

Volunteering: UBC Orientation Leader, UBC Imagine Day Leader, Sree Narayana Mission Singapore

Languages: English, Telugu, Hindi, French

Interests: Graphics Design, Animation, Digital Art, Cooking, Badminton