Manan Daga

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EDUCATION

University of British Columbia *Vancouver, BC*
Bachelor of Science in Computer Science and Statistics *Sep 2022 - Apr 2026*

- Major GPA: **4.33**/4.33; Cumulative GPA: **4.2**/4.33; **Dean's Honour List** (2022/23)
- Relevant Courses: **Algorithms and Data Structures**, Systematic Program Design, Models of Computation, **Software Construction**, Data Science and Statistical Inference, Advanced Calculus, Matrix Algebra
- Computer Science Student Society (General Member)

SKILLS

Languages: Python, Java, C/C++, R, HTML, CSS, JavaScript, SQL
Technical Skills: React/React Native, Django, Matplotlib, Pandas, NumPy, ScikitLearn, Tidymodels, Spring, Beautiful Soup, Firebase
Tools: Git, VS Code, PyCharm, IntelliJ, Jupyter Notebooks
Data Science: Data Analysis, Data Preprocessing, Feature Extraction, Data Visualisation, Modelling

EXPERIENCE

Insphere Solutions Pvt. Ltd. *Delhi, India*
Software Developer *Jun 2021 – Aug 2021*

- Developed and deployed an app using **React Native** during the COVID-19 pandemic, facilitating the vaccination process of over **10000** underrepresented individuals
- Worked cross functionally with developers and UI designers to create an intuitive UI and integrated features such as appointment booking and real-time vaccine information through **Firebase**.

PROJECTS

UBC Course Scheduler | *React, Python, Django, Beautiful Soup* *May 2023 - May 2023*

- Created a web application using **React** to facilitate course selection across **150+** subjects for students, taking into account various criteria such as courses, term preferences, and time constraints
- Extracted details about courses by scraping the UBC website through **Beautiful Soup**
- Employed a backtracking search algorithm in **Python** to efficiently manage the course selection
- Developed the backend using **Django** integrated with the **Django REST Framework** to build a RESTful API that handles user requests

Space Invader Face-Off | *Python, Pygame, Sockets* *Sep 2023 - Sep 2023*

- **Python** based two-player local multiplayer game using **PyGame** where users battle head-to-head with their spaceships
- Implemented data synchronisation methods using **socket programming** to achieve near-instantaneous cross device **networking** communication with latency less than **0.02** seconds, enabling bullets to seamlessly travel between players' screens

Drum Player (Unique Coursework) | *Java, JUnit, Swing, JSON* *Feb 2023 - Apr 2023*

- **Java** based Drum app with a GUI implemented using **Swing** to emulate a drum set
- User triggers a drum sound using keys from the keyboard which can be recorded to be replayed later
- Designed a state-saving mechanism for users to save the application's state for use in future sessions by serialising the data into a **JSON** format
- Extensively tested the code using **JUnit** to ensure the robustness and the reliability of the app's functionality

Heart Disease Prediction (Coursework) | *R, Tidymodels* *Feb 2023 - Apr 2023*

- Created a classification model using **K-Nearest Neighbours** Classification in **R** to predict the presence of heart diseases with an **84%** accuracy using just 300 feature vectors
- Cleaned, tidied and manipulated a real-world dataset from Kaggle into testing and training sets
- Used **forward selection** and **cross validation** to find the best variables and k values respectively for the classifier