

# Anmol Madaan

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## SUMMARY

Highly analytical and results-oriented professional with a BSc (Hons) in Computer Science with a proven ability to thrive in fast-paced, high-pressure environments. Driven by a deep passion for innovation, as exemplified by my dissertation on Drone Automation using cutting-edge technologies such as Microsoft AirSim and Unreal Engine. Dedicated to continuous learning and improvement, consistently delivering successful projects through strong problem-solving skills, adaptability, and effective time management.

## EDUCATION

### BSc (Hons) Computer Science

University of Bath, Bath, UK | 09/2019 – 07/2023

- Achieved a solid foundation in computer science principles, algorithms, and programming languages
- Developed a comprehensive understanding of data structures, databases, and software engineering methodologies

### High School Diploma

The Indian High School, Dubai, UAE | 06/2007 – 05/2019

- Demonstrated a strong academic record and a well-rounded education

## TECHNICAL SKILLS

Python • Java • C • C++ • Microsoft Excel • SQL • UX/UI design • SpringBoot Framework •  
Cryptography and Encryption (AES) • Networking Concepts and Protocols • Machine Learning and NLP •  
Microsoft AirSim • Design Tools (Figma, AutoDesk Inventor, Unreal Engine)

## PROJECTS

### Drone Parameter Optimisation Dissertation

- Conducted in-depth research on the interplay between parameter variations, defining optimal ranges for a reinforcement learning model, resulting in significantly enhanced drone collision avoidance efficiency.
- Developed and rigorously tested the model within stringent timelines, demonstrating strong performance under pressure, adept problem-solving skills, adaptability, and effective time management.
- Utilised cutting-edge technologies such as Microsoft AirSim and Unreal Engine to create realistic simulations and validate the model's performance.

### Natural Language Processing (NLP) Project

- Implemented an extensive NLP project for sentiment analysis, targeting the classification of IMDB movie reviews into positive and negative sentiments.
- Fed data into the algorithm to build comprehension and enable sentiment prediction, achieving an impressive accuracy score of 89%.
- Demonstrated strong proficiency in Python and its libraries for natural language processing and machine learning.

### Secure Messaging Application

- Developed a secure messaging app, integrating software development and cryptographic principles, with an initial focus on backend functionalities as part of a coursework project.
- Enhanced security by implementing encryption and decryption methods, ensuring confidential messaging and protection against unauthorised access.
- Deepened understanding of cryptographic principles and their practical applications in secure software development.

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## Entrepreneurship Group Project

- Collaborated on developing a comprehensive business model for a web app start-up, gaining invaluable experience in various stages of business model creation, achieving an impressive 86% score.
- Played a pivotal role in prototype design using Figma, creating intuitive and visually appealing user interfaces that significantly contributed to the project's success.
- Contributions recognised in the professor's feedback were instrumental in the group's overall project success, highlighting strong design skills and the ability to work effectively in a team.

## WORK EXPERIENCE

### Software Development Intern

**Abu Dhabi Commercial Bank, Abu Dhabi, UAE | 07/2022 – 09/2022**

- Spearheaded data extraction and analysis initiatives, leveraging Java programming to automate data extraction from raw text to Excel spreadsheets, significantly reducing manual effort and improving data accuracy.
- Generated insightful graphical representations of analysed data, enabling stakeholders to make data-driven decisions.
- Implemented advanced AES encryption and other cryptographic principles in software development projects, ensuring robust data security and integrity and safeguarding sensitive financial information.

## SOFT SKILLS

Analytical Thinking • Problem-Solving • Adaptability • Quick Learning • Time Management and Prioritisation • Teamwork and Collaboration • Creativity and Innovation • Leadership and Motivation • Effective Communication • Project Management

## ACTIVITIES

### Hello World 4.0 Hackathon

- Earned the 'Innovator's Badge' for the 'Student Space' project, contributing to creating impressive Resumes/CVs in the 'Education' theme during the 24-hour hackathon.
- Showcased creativity, teamwork, and the ability to develop innovative solutions under time pressure.

### Launchpad Hackathon

- Participated in the 24-hour Launchpad Hackathon hosted by the University of Bath Entrepreneurs Society.
- Collaborated with a six-member team to present "Waste Away," a trailblazing waste management solution that addresses environmental concerns and promotes sustainability.
- Demonstrated strong problem-solving skills, adaptability, and the ability to work effectively in a diverse team.

### First Day Back Hacks by MLH

- Developed "el'terminoLOGY," a Django Python web app, in a 36-hour hackathon focusing on software development.

### Round Square International Conference (RSIC)

- Represented high school at RSIC in Canada, participating in discussions on social issues and volunteering at a food bank, showcasing adaptability, cultural awareness, and commitment to social responsibility.

### Formula-1 in School

- Collaborated with a team to develop a miniature F1 car using CAD, CAM, and CNC tools.
- Secured sponsorships, demonstrating initiative, teamwork, and project management skills.

## ADDITIONAL INFORMATION

- Holder of UK and UAE visas, enabling work in both regions.
- Possesses a valid UAE driving license.