

ADITYA JOSHI

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EDUCATION

National University of Singapore (NUS) **Aug 2023 – Apr 2027**
Bachelor of Computing in Computer Science | Artificial Intelligence
• CGPA: 4.00

EXPERIENCE

R&D Software Developer Intern, Laconic Technology Company Limited, Bangkok, Thailand **May 2025 – Aug 2025**

- Designed and implemented 100+ REST APIs using Java (Spring Boot), ensuring alignment with frontend integration requirements
- Designed PostgreSQL schema for POS + e-commerce platform, mapping entities to business workflows
- Prototyped an AI-powered chatbot using Python and Retrieval-Augmented Generation (RAG) with Vanna & Llama3, enabling natural language data queries
- Built and deployed MVP backend in under 3 months from research → competitor benchmarking → stakeholder feedback → implementation

Tech Executive, Artimal, Singapore **Oct 2024 – Jan 2025**

- Led tech initiatives for Artimal, developing chatbot to be used as mascots
- Maintained the database for the chatbot in MySQL
- Managed software projects, ensuring timely delivery and alignment with business goals

Co-Founder, Bookism, Khatima, India **Jan 2022 - Sep 2022**

- Co-founded a book rental start-up along and over-looked shipping and collection
- Gathered 200 people initially within a week and rented over 30 books
- Conducted 3 seminars and got more than 100 students onboard

PROJECTS

YouTube Comments Sentiment Analyzer **Sep 2025**

- Developed full-stack sentiment analysis application using XGBoost classifier achieving 85% accuracy on YouTube comment classification
- Built end-to-end ML pipeline with SpaCy NLP preprocessing, TF-IDF vectorization (5K features), and real-time sentiment prediction on 1K+ comments per video
- Engineered Flask REST API with YouTube Data API integration for automated comment extraction
- Created interactive React dashboard with Chart.js visualizations, displaying sentiment distribution and top confidence-scored positive/negative comments

Flight Delay Prediction System **Sep 2025**

- Developed advanced flight delay prediction system with XGBoost achieving 77% accuracy on 558K+ flight data from Bureau of Transportation Statistics

- Engineered multi-model pipeline incorporating distance and duration estimators, enhancing prediction robustness through feature engineering
- Built scalable REST API with Flask backend
- Created dynamic React frontend with responsive design and gradient animations

Huffman Compressor

Aug 2025

- Implemented complete Huffman coding algorithm achieving 30-50% compression ratios using priority queue tree construction and greedy optimization
- Engineered bit-level file manipulation with custom binary format including embedded metadata for lossless compression/decompression cycles
- Built professional CLI with Maven packaging, featuring compression statistics and cross-platform executable JAR distribution

Tric-Tac-Toe

May 2025

- Designed and developed a custom Tic Tac Toe variant with move-removal mechanics, enhancing gameplay complexity
- Implemented AI opponent using Negamax with alpha-beta pruning, achieving competitive decision-making
- Built an interactive web-based interface with Streamlit, featuring responsive design, custom styling, and real-time updates

Video Game Sales Predictor

Apr 2025

- Developed a machine learning model in Python using Pandas and Scikit-learn to predict global video game sales with Linear Regression
- Visualized model predictions versus actual sales through detailed scatter plots created in Seaborn, enabling clearer assessment of model performance

TalentSG

Aug 2024 – Dec 2024

- Built a candidate and job role management system tailored for HR professionals and recruiters
- Designed and implemented a hybrid CLI-GUI interface using Java and JavaFX, enabling efficient text-based commands with visual feedback

KAYO, Orbital Project

May 2024 - Aug 2024

- Developed "KAYO", a web-based platform aimed at improving the accuracy and reliability of AI models like ChatGPT for document analysis
- The platform minimizes hallucinations and irrelevant outputs, enhancing the extraction of relevant information for academic, research, and professional use
- Achieved "Level Apollo 11," the second-highest level for the project
- Responsible for backend development and ensuring the smooth functionality of the KAYO platform

TECHNICAL SKILLS & ABILITIES

Programming Languages: Python, Java, C, C++, HTML, CSS, TypeScript

Frameworks and Tools: Spring Boot, React, Git, GitHub, RAG, Vanna, Llama3, PyTorch, XGBoost, Scikit-learn, Seabreeze, HuggingFace, Streamlit, Pandas, Seabreeze

Database: PostgreSQL, MySQL, SpaCy, Joblib

Others: MATLAB, Adobe Creative Cloud, DaVinci Resolve, FL Studio, Ableton Live

CO-CURRICULA AND VOLUNTEER EXPERIENCE

Publicity Head, NUS Electronic Music Lab, Singapore

Aug 2024 – May 2025

- Increased online engagement by managing social media and producing event publicity materials
- Promoted workshops and performances, boosting participation and visibility

Member, Softball (Kent Ridge Hall), Singapore

Aug 2023 – May 2025

- Represented the hall in Inter-Hall Games (IHG) softball competitions
- Contributed to the team's achievement as 2nd Runner-up in IHG

Member, Video Production Team (Kent Ridge Hall), Singapore

Oct 2023 – May 2024

- Part of video production team responsible for recording events conducted by Kent Ridge Hall and creating appropriately edited content for promotion and publicity

Member, Tara Baal Sanstha, Khatima, India

Sep 2021

- Taught 20 underprivileged children and donated books and other literatures

ACTIVITIES AND INTERESTS

- Language Proficiency: English [Fluent], Hindi [Mother Tongue]
- Music Production, Filmmaking, Poetry, Basketball, Hip-Hop, Anime, Photography