ASWIN ASHOK

Software Developer | Game Developer | Data Science

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PROFESSIONAL SUMMARY

First-year BTech (Computer Science and Business Systems) student at Model Engineering College and concurrent BS Data Science student at IIT Madras. Six years of hands-on Unity game development experience with a strong foundation in systems programming, low-level architecture, and data-driven tooling. Proven ability to deliver working software under tight deadlines, with practical expertise in Python, C#, Linux systems, and AI/ML pipelines.

EDUCATION

BTech — Computer Science and Business Systems 2025 – Present
Model Engineering College, Thrikkakara

BS — Data Science and Applications 2025 – Present
Indian Institute of Technology (IIT) Madras

Class XII (CBSE) 2023 – 2025
Believers Church English Medium School, Alappuzha
Score: 96.33%

Class X (CBSE) 2013 – 2023
Believers Church English Medium School, Alappuzha
Score: 90.8%

TECHNICAL SKILLS

Languages: Python, C#, Java, C, JavaScript, HTML, CSS, MySQL
Game Development: Unity (6+ years), C# Scripting, DOTS, ECS, Burst Compiler, Photon Networking, Krita
AI / ML & Data: LangChain, Ollama, ChromaDB, RAG pipelines, Embeddings (mxbai-embed-large)
DevOps & Tools: Git, GitHub, Docker, Bash/ZSH, uv, SSH, Tailscale, Pi-hole, Fail2Ban, n8n, Google Cloud Platform
IDEs & Editors: JetBrains (IntelliJ IDEA, PyCharm), VS Code
Operating Systems: Arch Linux, Ubuntu/Linux Mint, macOS (Apple Silicon), Windows

EXPERIENCE

Research Sub-Lead 2026 – Present
National Student Data Corps (NSDC MEC), Model Engineering College

- Lead research initiatives within the student development council, coordinating literature reviews and technical investigations.
- Collaborate with team members to produce structured research outputs for club projects and events.

Game Development Workshop Facilitator 2025
Game Developers Club (GDC MEC), Model Engineering College

- Invited by GDC MEC to lead a game development workshop for college peers as a first-year student — an opportunity typically reserved for seniors.
- Covered Unity workflows, optimization strategies, and practical game development concepts; made content accessible to complete beginners.
- Seniors and club organizers recognized years of self-directed learning in Unity, DOTS, and ECS during the session.

Executive Member 2025 – Present
NSDC MEC | FOSS MEC | GDC MEC

- Active contributor across three college tech clubs covering open-source software, game development, and student development.
- Organized and delivered an HTML/CSS/JavaScript web development seminar for peers; mentored junior students on front-end fundamentals.
- Participated in club recruitment processes including competitive technical project submissions under time constraints.

PROJECTS

DocPilot

Python · LangChain · Ollama · ChromaDB · Typer

- Built a local-first, privacy-preserving RAG CLI tool that ingests PDFs, CSVs, websites, and sitemaps and answers natural-language queries — no cloud API dependency.
- Architected a full pipeline: custom BFS web scraper with robots.txt compliance, mxbai-embed-large embeddings via Ollama, ChromaDB vector store with MD5 chunk deduplication, and LangChain LCEL retrieval chain.
- Supported multiple LLMs (qwen2.5:7b, deepseek-coder-v2:16b) switchable at query time.
- Developed and submitted as a complete open-source project for FOSSHack '26 within a strict hackathon deadline.

TinkerTiles — Memory Matrix

Unity · C# · Krita

- Designed and shipped a fully playable Unity puzzle game in 48 hours as part of a competitive college club technical recruitment process.
- Implemented core game loop, grid-based memory mechanics, visual effects, and UI entirely in C#; produced original 2D assets in Krita.
- Demonstrated rapid prototyping, scope management, and delivery under pressure.

Hospital Management System

Java · MySQL

- Developed a Java desktop application modelling hospital workflows including patient records, appointment scheduling, and basic data persistence with MySQL.
- Applied OOP principles (inheritance, encapsulation, polymorphism) to produce a maintainable, layered architecture.

Home Lab Server Setup

Arch Linux · Docker · Tailscale · Pi-hole · SSH

- Configured a headless Arch Linux home server with SSH hardening, UFW/Fail2Ban firewall rules, static IP via NetworkManager, and Docker containerisation.
- Deployed Pi-hole for network-wide DNS-level ad blocking; integrated Tailscale VPN for secure remote access from any device.
- Hands-on applied networking and Linux systems administration.

ACHIEVEMENTS & EXTRACURRICULARS

- Class XII CBSE: 96.33% — ranked among top performers at school.
- Six years of independent Unity game development, progressing from beginner hobbyist to advanced DOTS/ECS architecture.
- Participated in FOSSHack '26 — built and submitted a complete open-source project in a competitive hackathon environment.
- Delivered a web development seminar (HTML, CSS, JS) to college peers; trained junior students in front-end fundamentals.
- IEEE student club interview participant; engaged with engineering society activities at college level.

LANGUAGES

English (Fluent) | Malayalam (Native) | Hindi (Conversational)