

# SAAHIL AHMED

+91 8459439507 | [saahil.ahmed16@gmail.com](mailto:saahil.ahmed16@gmail.com) | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

## TECHNICAL SKILLS

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**Languages:** C#, C/C++, SQL, Python, HTML/CSS, WebGL

**Patterns:** Finite State Machines, Behaviour Trees, Singletons, Observer, Prototype, Command

**Engines:** Unity, Unreal Engine

**Developer Tools:** Git, VS Code, Visual Studio, Blender, Photoshop

## EDUCATION

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**Vellore Institute of Technology, Bhopal**

September 2022 - September 2026

- BTech in Computer Science and Engineering (Gaming Technology)
- CGPA: **8.78** (Till 7th Semester/Current)

## WORK EXPERIENCE

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**GameInk** | *Game Development Intern*

January 2025 – June 2025

- **Engineered and fully integrated 3 diverse enemy attacks and behaviors**, ensuring engaging and dynamic combat encounters.
- Created and refined **5 animations, Niagara VFX-based solutions**, and **shaders** to enhance enemy attack effects and overall visual fidelity.
- Collaborated closely with a **team of 6** consisting of **artists, designers, and programmers** to refine gameplay mechanics and **achieve the intended player experience**.

## HIGHLIGHTED PROJECTS

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### BANG!

June 2025 - October 2025

- **Led programming** for a modular FPS in Unreal Engine, building a **data-driven gun system** with CSV-based stat tables for rapid, **designer-friendly iteration**.
- Engineered a **custom Gameplay Ability System (GAS)** with unified cooldown/cost handling, enabling **scalable player and enemy abilities** with minimal redundancy.
- Developed **procedural first-person animation systems** for sprint, slide, dash, and recoil, **eliminating animator dependency and accelerating weapon and animation iteration**.
- **Optimized large-scale Nanite + Lumen levels**, achieving a **90% performance gain** (boosting from 30–40 FPS to stable 60 FPS in-engine / 90 FPS out-of-engine).
- Implemented **object pooling and modular wave spawning**, supporting 30+ preloaded enemies and **reducing runtime overhead and stutter**.

### Hack and Slash Template

May 2025

- Built a modular combat system in Unreal Engine 5, leveraging **C++ for core architecture and Blueprints for rapid prototyping**, enabling **fast iteration and designer flexibility**.
- Designed **data-driven combo mechanics** and implemented responsive **enemy AI with Behavior Trees**, improving **encounter variety and scalability**.
- **Enhanced combat feel** and player feedback with **hit-stop, screen shake, VFX, SFX, and dynamic UI elements**, **increasing immersion and clarity**.
- Developed reusable **health and attack components in C++**, standardizing combat logic across players, enemies, and destructibles to **reduce duplicate code and simplify balancing**.
- **Optimized combat systems for performance and extensibility**, delivering clean, **documented code** that streamlined collaboration and **future feature integration**.

## EXTRA-CURRICULARS

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**Gaming Club** | *President*

August 2022 – Current

- Organized and managed **10+** gaming related educational Events.
  - \* "Unreal Creations" **Unreal Engine Workshop** with Akash R.
  - \* "Level Up" **Unity Workshop** with Aman Verma.
- Connected with **100+** fellow Game Development/Gaming enthusiasts and cultivated a **community** for **Game Developers** in the college.
- Held and evaluated 3 Game Jams under the club.