Archit Kumar

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EDUCATION

Yale University   New Haven, CT
Simultaneous B.S. + M.S. Computer Science, 4.0/4.0 GPA   *Aug. 2022 – May 2026*

- **Relevant Coursework:** Systems Programming, Game Engine Programming, Real-Time 3D Graphics, Physics Simulation for Movies, Machine Learning, Artificial Intelligence, Algorithms, Data Structures, Blockchains & Cryptocurrencies, Object-Oriented Programming, Software Engineering, Language and Computation

EXPERIENCE

Yale Efficient Computing Lab   Jun. 2024 - Sep. 2024
Research Intern under Prof. Lin Zhong   *New Haven, Connecticut*
  * Integrated the ParaMax network performance algorithm in C++ for Agora, a novel software-based system for handling massive multiple-input multiple-output (MIMO) in 5G networks.

Minnapad   May 2024 - Jul. 2024
Generative AI Engineering Intern   *Tokyo, Japan (Remote)*
  * Leveraged Stable Diffusion and LoRA to produce consistent AI characters for video games and comics
  * Clients included Keiji Inafune (artist for *Mega Man* series) and Seiichi Ishii (designer for *Tekken* series)

Wildchain (Nonprofit Game Studio)   Jun. 2021 – Sep. 2021
Software & Animation Intern   *Bangkok, Thailand (Remote)*
  * Designed and implemented over 50 animations for in-game flora and fauna using Adobe Photoshop
  * Programmed intricate triggers for each animation in C#, enabling seamless integration within gameplay
  * Collaborated directly with the project manager during daily planning meetings, actively contributing to the identification of critical priorities for the game's beta release

People for the Ethical Treatment of Animals (PETA)   Jun. 2020 – Sep. 2020
Web Game Developer   *New York, New York (Remote)*
  * Independently conceived, designed, and developed the Unity/C# web game ["Monkey Fright"](#) to promote awareness about monkey cruelty in government health laboratories
  * Strategically collaborated with PETA's Vice President of Marketing to align the project with the organization's goals and to amplify its presence on social media

PROJECTS

Skater Gator | *Unity, C#, Adobe Photoshop, Autodesk Sketchbook, Xcode*   Dec. 2019 – Present
  * Sole contributor in conceiving and designing an iOS [mobile game](#), which has achieved over 3600 downloads from 118 different countries
  * Oversaw end-to-end development encompassing programming, art, animation, music, release, and marketing

Cortex Crusader Game Engine | *Dlang, SDL*   Nov. 2024 - Dec. 2024
  * Engineered a custom [game engine](#) with both 2D and 2.5D (Mode 7) capabilities
  * Implemented the engine's GUI, save/load functionality, game object editor, and demo game

Toon Landing | *HTML, CSS, JavaScript*   Dec. 2019 – Present
  * Launched a quality-oriented game/entertainment studio to showcase original cartoon worlds and characters
  * Independently crafted the [company website](#), employing HTML, CSS, JavaScript, and 70+ original illustrations

Terrainer | *Unity, C#, Mapbox SDK*   Jan. 2022 – Mar. 2022
  * Led a team of four in building an experimental 3D Unity game incorporating real world satellite data
  * Created and animated a player character modeled after myself using Avatar Maker for Unity.

TECHNICAL SKILLS

Languages: Python, C/C++, C#, Rust, Java, Dlang, R, HTML/CSS, JavaScript, SQL, Racket, Solidity
Developer Tools: Unity Game Engine, Godot Engine, Linux, XCode, VS Code, R Studio, Git, GitHub, LaTeX