## ARYAN BABURAJAN

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#### **EXPERIENCE**

Ducktape 2021 – present

Creator

- Built a robust 3d game engine in C++ from scratch.
- Implemented a real-time renderer using OpenGL, with prior rewrites in Vulkan for performance optimization.
- Added native C++ DLL scripting support to extend functionality and enable modular development.
- Developed an ImGui-based editor for in-engine debugging and content creation workflows.

SerenityOS Mar 2024

Contributor

- Learned about character encoding standards like Unicode and improved Unicode support from ASCII for several native
  applications.
- Ported a few applications to use the newly developed GML Serenity's GUI Markup language.

TinkerPlay

2025
Tutor

Thrissur, India

- Held a workshop on the basics of Game Development to a room of first and second years using Processing5.js.
- · Super proud about having taught them the joy of reading documentation, coding, and experimenting in their projects.

KochiFOSS
Speaker
Kochi, India

- Delivered a talk to 100+ college students as the youngest student there from highschool.
- Presented my project, the Ducktape Game Engine and talked about my experience in building a game engine from Scratch.

### TECHNICAL SKILLS

- Languages: C++, C, Python, JavaScript, C#, TypeScript
- Graphics / GameDev: OpenGl, Vulkan, EnTT, Dear ImGui, Unity
- Web / Backend: React, Next.js, Nest.js, Express, Node.js, Kinde, Resend
- Tools: Git, CMake, Blender, Netlify, Heroku, Vercel, MySQL, MongoDB, WebSockets

#### **PROJECTS**

- Mirage A personalized version of ProductHunt.com that caters to the user's interests with a user authenticated product dashboard and an email newsletter system to periodically send emails through cron jobs. <u>GitHub</u>
- DirectShare File transfer service using Express.js, EJS, and Netlify. Allowed file transfer between clients worldwide. GitHub
- Plaintext Minimalist text-only browser in Python. GitHub
- Godspeed (incomplete) Room-based file sharing using WebSockets, Express.js, and React. GitHub
- Robot Web crawler in Python. GitHub
- Burrito (incomplete) Note-taking app blending Notion and Excalidraw. Built a canvas system for text and image transforms using Next.js and React. <u>GitHub</u>
- Chaos Car Destruction Physics-based destruction simulator developed with Unity. Website

### **EDUCATION**

# Christ College of Engineering

2025 - 2029