

ISHAN BAWNE

BS-PHYSICS | Indian Institute of Technology, Kanpur

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Raipur, Chhattisgarh, India

EDUCATION

Indian Institute of Technology, Kanpur

Undergraduate | BS PHY

2020 - Present

Kanpur, India

Kendriya Vidyalaya No.2 Raipur

XII, CBSE

2020

Raipur, India

Kendriya Vidyalaya No.2 Raipur

X, CBSE

2018

Raipur, India

WORK EXPERIENCE

Internship, CreativeFuel Pvt. Ltd.

Development and Automation August 2021 - September 2021

- The project was at the intersection of domains procedural generation, GLSL shaders, and automation.
- Modified an **open source tool** that can generate different types of animated planets in pixel art style.
- Made relevant changes in the project to **increase the resolution** of the exported gifs and write GLSL shaders to add more types of planets.
- Automated** the whole process of variation of parameters and exported the planets in huge numbers on the conditions to the different types of planets while keeping a record of the kinds of planets and their specific parameters.

POSITIONS OF RESPONSIBILITY

Coordinator, Game Development Club

Science and Technology Council, IITK May 2022-Present

- Organized and mentored **three SnT Summer Projects 2022** for **25+** Students. **Introduction to Graphics and Shaders**, **Introduction to Game Development**, and **Introduction to 3D Art and Rendering**
- Conducted **workshop on Programming Game Mechanics** which provided hands on experience to participants about coding and thinking how game mechanics works.
- Conducted **workshop on Procedural Generation** in which participants were taught how they can write shaders in GLSL shading language. The participants were exposed to topics like Perlin noise and Graphics rendering.
- Submitted art-works to a weekly social media campaign "**Render Monday**", with a **reach of 2.5K+**, aimed to popularize digital artworks in the campus community.

Senior Member, Team Vision

Science and Technology Council, IITK 2022-Present

- Assisted the team heads in managing the team.
- Led recruitment** of first-year students from a pool of **120+ entries** into the team
- Mentoring junior team members to participate in prestigious **robotics and autonomous navigation competitions**.

Student Guide

Counselling Service, IITK 2021

- Guided and **mentored 6 freshmen** students in acclimatizing to the Environment of the Institute.
- Helped them with their academics by arranging meetings with their mentors and still maintain a good rapport with them.

PROJECTS

Advanced Game Development

Game Development Society IIT Kanpur (Studio Centauri) July 2021

- Submitted a **playable game** as a recruitment task made with **Godot Engine**.
- Brainstormed ideas for the final game project and then designed the **game mechanics** and other game design elements, finalized timeline for the remaining project duration.
- Implemented the game design and made a **3D shooter game using Unity Engine**, working as programmer and game designer in a team of 5 members.

Cross Validated

Stamatics IIT Kanpur June 2021

- Learned about fundamentals of statistics and algorithms like **MLE** and **Derivative methods** and exposed to techniques like **Regression**, **Sampling**, and **Bayesian Inference**.
- As an application, we were tasked to fit the **Bernoulli distribution** model to given data set using the **Maximum Likelihood Estimator** method and to predict results from the model.

Canteen Order Automation System

Course Project CS253 January - April 2022

- The project aimed to develop a **central** canteen automation system for all the canteens across the campus, through which we would be easing canteen management for canteen managers and **ordering food**, and **keeping track of their expenses** for students.
- Developed **separate portals** for canteen managers and students and an **accounting system** so students can pay all the canteen bills once a month.
- Developed the website with **Django Framework**, where I was tasked to build the website's backend.

Graphing Terminal

Self Project July 2021

- A tool that can plot any **2d parametric curve** in a terminal using ASCII characters. The tool also allows users to **navigate** in coordinate space and perform operations like **zoom**, **scale** and **translate** using the command-line interface.
- Wrote the tool in the **C** programming language without any external libraries.

Mentos Mookit

Self Project September 2021

- Redesigned the **User Interface** of the website serving course material "**Mookit**" in dark mode and added **additional features** to the website like a drawing pad to scribble.
- Implemented the design and features by writing custom CSS and **Javascript** files and enforcing them using browser extensions.

SKILLS

C, C++, C#, Python, Javascript, GDScript, CSS, HTML

Git, Linux, Bash, \LaTeX , Unity Engine, Godot

NodeJS, ExpressJS, React, Flask, Django, ROS

EXTRA CURRICULARS

- Represented **Chhattisgarh State** in the **Sub Junior National Football Championship** organised by **All India Football Federation**.
- Represented KVS Raipur Region in **Regional and National Football Championships**.
- Served as a scout and received **RAJYAPURASKAR** Award for social service.