ISHAN BAWNE

BS-PHYSICS | Indian Institute of Technology, Kanpur

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EDUCATION

Indian Institute of Technology, Kanpur
Undergraduate | BS PHY
📅 2020 - Present   📍 Kanpur, India

Kendriya Vidyalaya No.2 Raipur
X, XII, CBSE
📅 2018, 2020   📍 Raipur, India

WORK EXPERIENCE

FinMechanics India Pvt. Ltd.
DevOps and Development Engineering Intern   *May 2023 - July 2023*
- Developed a service orchestration and management utility capable of starting and terminating services based on their interdependencies.
- Ensured that when initiating a specific service, all its dependencies are launched first before the given service, and similarly, when terminating a service, all dependent services are terminated prior to the main service.
- Implemented live status reporting for all services within the utility.
- Created a **Java Spring Boot** back-end to facilitate seamless communication with the orchestration utility and handle API calls from the front-end.
- Designed and developed a user-friendly Application Dashboard Frontend using **React.js**, enabling smooth interaction with the Spring Boot backend through **Axios** API calls.

CreativeFuel Pvt. Ltd.
Development and Automation Intern   *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 - April 2023*
- Served as the dedicated Coordinator of the Game Development Club, overseeing all club activities, events, budgets, and initiatives to foster a thriving game development community within IITK.
- Promoted and achieved the status of Club from Society by proposing the change in the Senate Student Gymkhana.
- Organized and mentored **three SnT Summer Projects 2022** for **25+** Students.
- Conducted a workshop on **Programming Game Mechanics**, providing participants with hands-on experience in coding and an understanding of how game mechanics work.
- Conducted a workshop on **Procedural Generation**, where participants were taught how to write shaders in GLSL shading language. The workshop covered topics such as Perlin noise and Graphics rendering.

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.