Vishal Paudel

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EDUCATION

- **Plaksha University, Mohali** B.Tech in Computer Science and Artificial Intelligence 2021-25 *CGPA: 8.3*

WORK EXPERIENCE

VibeBasket (IIT-Bombay E-cell incubated Start-up) | Software Engineer *2023*
- Developed a Word2Vec module from scratch for the LLM chatbot using Python. Deployed a corresponding Discord bot.

PROJECTS

An efficient implementation of Mandelbrot Set Graphical Browser | Professor K. Gopinath, IISC Bangalore *2023*
- Developed a multithreaded graphical exploration tool in Julia Lang, showcasing proficiency in parallel processing and mathematical visualization.
- Demonstrated creativity and mathematical aptitude by crafting an interactive platform for exploring the intricate and visually captivating Mandelbrot set.

Stern Gerlach Experiment Emulator | Dr. Nitin Upadhyaya *2022*
- Simulated the effects of intrinsic quantum spins in electrons when passed through a magnetic field, using Qiskit and Pygame.

Efficient Vertical Axis Wind Turbines | Dr. Shashikant Pawar *2021*
- Built a prototype of a self-designed vertical axis wind turbine. Produced 8% more power than traditional *VAWTs*.

Demonstration of Emergent Behavior in Dynamical Systems *2021*
- Built a software simulation tool in Python using Pygame that demonstrates emergent behavior.

Prototype BCI Prosthetic Arm *2019*
- Prototyped a BCI prosthetic arm using OpenBCI and Arduino UNO, allowing control via eye-driven signals from the visual cortex.

TOOLS AND SKILLS

- *Programming Languages*: C/C++, Rust, Python, Julia, Haskell.
- *Software Tools and Packages*: Linux, Vim/Neovim/Helix, Matlab, Unity Game Engine.
- *Others*: Computer Simulations, Chess (State Level), Competitive Programming (Pupil on Codeforces).

POSITIONS OF RESPONSIBILITY

- *Leader of Robo Siksha Kendra* at Vidya School, Gurgaon. *2016*
- *Mentor at Young Technology Scholars*, Pathways World School, Aravali. *2019*

AWARDS AND HONORS

- *MENSA India:* scored at the 99th percentile on a standardized, supervised IQ test. *2014*
- **FIRST Lego League***: Best robot design, amongst 120 schools in the *North Zone.* *2016*
- *Prototype BCI Prosthetic Arm:* Won a cash prize of INR 20,000 at Pathways World School. *2019*
- *Bharti Scholar* Recipient of a scholarship of INR 36 Lakh from Mr. Rakesh Bharti Mittal. *2021*