ANNIKA GARG

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EDUCATION

National University of Singapore

Aug 2023 - Present

Bachelor of Engineering, Electrical Engineering with 2nd Major in Computing

TECHNICAL SKILLS

- Programming Languages: Java, Python, C++, Verilog
- Data Structures and Algorithms
- MATLAB
- CircuitLab
- Autodesk Fusion 360

PROJECTS

Venture Initiation Programme@School of Computing - VetBuddy

Oct 2024 - Present

- Co-developed VetBuddy as part of a 3-person team, leveraging AI for real-time prescription suggestions, drug interaction checks, and an integrated health record system to streamline veterinary workflows
- Secured a \$10,000 grant, validating the project's innovation and impact

FPGA Programming - Pinball Game

Aug 2024 - Nov 2024

- Developed a Verilog-based Pinball Machine on the Basys 3 FPGA
- Programmed LED indicators, LED display,7-segment display, and switch-controlled interactions for game mechanics
- Implemented finite state machines to manage game logic and score tracking
- Integrated upto 20 modules to ensure seamless functionality and real-time responsiveness

Self-Navigating Obstacle-Clearing Robot

Aug 2023 - Dec 2023

- Designed and built a self-powered robot to navigate obstacles and launch a ping pong ball over a wall
- Integrated Arduino, motors, and sensors, applying engineering principles of torque, power, and friction
- Refined the design iteratively through five prototyping stages, reducing weight and improving speed

WORK EXPERIENCE

Nippon India Mutual Fund, Investments Intern

May 2024 - Jul 2024

- Performed financial model analysis on key performance parameters using MS Excel
- Analysed annual reports and business models of 6 companies in the F&B sector
- Collaborated with the Chief Investment Officer to interpret if a company is worth investing using annual reports, investor presentations, peer comparison and SWOT analysis

Hinduja Renewables Pvt. Ltd., Human Resources Intern

Mar 2022 - Apr 2022

- Designed trackers on MS Excel used to record employee data of 100+ employees
- Gained insights into the roles and responsibilities of the HR department and its significance in the corporate environment

CO-CURRICULARS

Head of Programmes, IEEE-NUS Student Branch

Sep 2024 - Present

• Organized a workshop on origami with Prof. Jason Ku (an origami enthusiast), attended by 30+ students

Crowdfunding Campaign, Fueladream

Oct 2020 - Nov 2022

- Executed a crowdfunding campaign to help girls of grade 9 and 10 from poor families get education
- Raised funds through a crowdfunding campaign to support outstation cancer patients and help them with accommodation near their treatment centre in Mumbai