Dhanuj

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EDUCATION

Indraprastha Institute of Information Technology, Delhi (IIITD)

BTech in Computer Science
2023-2027(/Present)

EXPERIENCE

- **ML AI-based Cell Segmentation and Tracking Automation**
  (May,25 – Present) GitHub
  Developing software to automate cell segmentation and tracking in microscopy videos using machine learning and image processing techniques. Leveraged tools like OpenCV and ilastik to apply trained models for accurate, real-time biological image analysis.

SKILLS

- **Programming Languages:** Python, C++, Java, C
- **Core CS Concepts:** Data Structures and Algorithms, Object-Oriented Programming, Operating Systems, Database Management Systems
- **AI/ML & Computer Vision Tools:** OpenCV, ilastik
- **Tools & Technologies:** Git, GitHub, MySQL, IntelliJ IDEA, Visual Studio, VirtualBox, Arduino
- **UI/UX & Collaboration Tools:** Figma, Miro, Canva
- **Game Development Tools:** libGDX, Box2D
- **Technical Electives/Courses:** Computer Organisation, Digital Circuits, Advanced Programming, Analysis and Design of Algorithms (ADA)

INTERESTS

- Problem Solving
- Travelling
- Fitness

LANGUAGES

- Hindi
- English

PROJECT

GoCart - Unified E-Commerce & Instant Delivery Platform | January 2025 – May 2025 GitHub
• Built a full-stack shopping platform integrating traditional e-commerce and instant delivery systems.
• Enabled real-time inventory and location-based delivery scheduling to streamline shopping and logistics.

Mini ERP System | August 2024 – September 2024 GitHub
• Enhanced a Java-based academic ERP system with course registration and user-specific role menus.
• Improved academic tracking and feedback resolution processes by over 80%.

Angry Bird | August 2024 – November 2024 GitHub
• Developed a 2D physics-based game inspired by Angry Birds using Java, LibGDX, and LWJGL.
• Included realistic collision mechanics and a random level generator for dynamic gameplay across 3 levels.

Smart Navigation Wheelchair System (SNWS) | August 2024 – November 2024 GitHub
• Developed an autonomous wheelchair system for safe, independent navigation in crowded environments.
• Implemented real-time obstacle detection and pathfinding features to enhance mobility for users with disabilities.

Assembler and Simulator | January 2024 GitHub
• Designed and implemented a custom assembler and simulator for a given Instruction Set Architecture (ISA).
• Built the system to simulate instruction execution for educational and testing purposes.

Food Ordering Management System | October 2024 – November 2024
• Created a CLI and GUI-based platform for browsing menus, placing orders, and tracking deliveries.
• Enhanced operational efficiency for canteen staff and improved ordering experience for students.

ROLES AND RESPONSIBILITY

- President (Machaan IIITD Club) — (Aug,24 – Present)
- Organising team member- Odyssey 24 — (Aug,23 – Aug,24)
- Student Council Member — (Aug,24 – Present)
- Farewell Events OC — (Aug,24 – Present)
- Induction Events OC — (June,25 – Present)

EXTRACURRICULAR

- Hathkadi Play, Ashoka (1st Position)
- Volley ball, Astra (1st Position)
- Hackathon
- Badminton, Mixed Doubles (2nd Position)