Ashu Kumar Jha

Education

Indraprastha Institute of Information Technology, Delhi

Bachelor of Technology in Computer Science and Applied Mathematics

November 2022 - April 2026 CGPA: 7.1

Work Experience

• Research Intern at PerSIsst Lab, IIITD

 $\mathbf{Aug}\ \mathbf{2024} - \mathbf{Dec}\ \mathbf{2024}$

Guide: Prof. Pragma Kar — GitHub

Designed a system using **DSP** techniques to generate chirp signals, analyze reflected audio, and detect number of people in a room using real-time phase mapping.

• Research Intern at Complex Systems Lab, IIITD

Aug 2023 - Dec 2023

Guide: Prof. Ganesh Bagler

Curated data using Selenium and **MongoDB**, visualized and classified it using **NumPy**, Pandas, and Matplotlib, and explored ML models with **Scikit-learn**.

Projects

• Stackify – Full-Stack E-commerce Web App — GitHub — Demo Vid

Developed a **MERN**-based shopping platform with GitHub OAuth, product filters, cart, and admin dashboard. Integrated **React**, **Tailwind**, **node.js**, Express, and MongoDB Atlas.

• Django Real-Time Chat Application — GitHub — Demo Vid

Built a real-time group chat app using Django, Channels, and WebSockets with user auth and persistent message storage. Deployed on PythonAnywhere with Tailwind-styled UI.

• Startup Pitching Platform — GitHub — Demo Vid

Built a full-stack app using **Next.js**, **Sanity CMS**, and **NextAuth** for pitching startups, voting, and editor curation. Included GitHub OAuth, dynamic search, markdown editor, and real-time views.

• Weatherly App (Kotlin) — GitHub — Demo Vid

Android weather app with Retrofit, Room DB, and WorkManager for real-time and historic data.

• StickHero Game (JavaFX) — GitHub — Demo Vid

Replica of StickHero using OOP, JavaFX and Scene Builder built in a 2-member team.

• BigStep-CustomFit (SQL) — GitHub

SQL-based customizable shoe ordering platform with inventory and secure transaction management. Team size: 2.

Skills

Expertise Area: Web Dev (HTML, CSS, React, Next.js), Django, Flask, NumPy, PyTorch, TensorFlow

Languages: Python, C/C++, Java, JavaScript, MySQL, Haskell

Tools & Tech: Git, GitHub, Linux, Figma, Docker, RStudio, JavaFX, Canva, Miro, PixelArt, Google Colab, WSL, Bash Shell, Vertex AI, LangChain, Hugging Face, Scikit-learn

Electives: Operating System, Computer Organisation, Data Structures and Algorithms, Computer Networks, Database Management System, Artificial Intelligence, Machine Learning, Mobile Computing, Adv. Programming

Positions Of Responsibility

- Organizing team member for campus events at IIITD:
 - ASTRA (Sports Fest) 2023, 2024
 - ODYSSEY (Cultural Fest) 2023, 2024
 - E-Summit (Entrepreneurship Fest) 2024
 - ESYA (Tech Fest) -2024