Yuval Goyal

Computer Science and Engineering
Indian Institute of Technology (BHU), Varanasi

UG Second Year (B.Tech)
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EDUCATION

- **Indian Institute of Technology (BHU), Varanasi** *Ongoing*
  CSE UG B.tech CGPA/Percentage: 8.49

- **Bhavan Vidyalaya** *2022*
  Central Board of Secondary Education CGPA/Percentage: 93.2

- **Sacred Heart Convent School** *2020*
  Central Board of Secondary Education CGPA/Percentage: 96.6

ACHIEVEMENTS

- **All India Rank 849** in **JEE Advanced**, the most prestigious engineering entrance exam in India *2022*
- **All India Rank 804 (top 0.1%)** in **JEE Mains**, in a total of **10 Lakh** candidates across India *2022*
- Awarded Research Scholarship in **Kishore Vaigyanik Protsahan Yojana(KVPY)** from **IISc Bangalore**, a **premier research institute** in India *2021*
- Received Educational scholarship in **National Talent Search Examination (NTSE)** conducted by the **Government of India** *2020*

PROJECTS

- **Cybersecurity CTF Website** *2023*
  IIT(BHU) Cybersecurity Club

  – Engineered and currently administering a **dynamic Capture The Flag (CTF) inspired website**, seamlessly integrating **cybersecurity challenges** with a **user-friendly interface**, with an emphasis on creating an engaging platform for students to **learn about cybersecurity by authoring related challenges**
  – Currently **adopted by the Infosec Club** to **host challenges** for incoming freshers, amassing a **user base of more than 300 participants**

- **Game Hacking Project** *2023*
  IIT(BHU) Cybersecurity Club

  – Engineered a **comprehensive game trainer** for the Windows version of **GTA San Andreas game**, by creating a **feature-rich utility enhancing gameplay experience**, encompassing **functionalities including unlimited health, financial resources, and character speed**
  – Utilized **Windows API in C++** to implement **memory manipulation techniques** and **injecting custom data at diverse memory pointers**
  – **Effectively delivered an impactful project demonstration** before an **audience exceeding 1000 freshers**

- **Improving Cybersecurity Audit Process** *2023*
  Inter-IIT Tech Meet 12.0

  – Developed a sophisticated application to enhance the **efficiency of cybersecurity audits**
  – The application achieves to streamline processes through **modular automation** and enhance the efficiency of **manual audit** procedures

- **Prediction of Bitterness of Molecules** *2023*
  Supevisor: Prof. Sanjay Kumar Singh

  – Orchestrated the development of a **machine learning classification model** with a focus on **molecular structures**, to discern the **bitterness of molecules**
  – Leveraged cutting-edge **SchzNet model** and **Graph Neural Networks** to architect and implement a **molecular classification system**

- **Library Management Web App** *2023*
  Supervisor: Prof. Amrita Chaturvedi

  – Conceptualized, engineered, and deployed a **robust Library Management Web Application**, leveraging **user-centric design principles**, resulting in a product that enhances **organizational efficiency and user experience**.
  – Utilized **Django framework** and **MySQL** to architect and implement the backend infrastructure for the dynamic web application, with key focus on good **back-end development** and **database management** to ensure **optimal performance, scalability, and data integrity**

Courses Undertaken

Core: Computer Programming, Data Structures, Data Science in Python, Computer Architecture, Discrete Mathematics, Web Development
Mathematics: Calculus, Linear Algebra, Probability and Statistics
Other: Advanced Cybersecurity, Applications of Bug Bounty Hunting

Technical Skills

Languages: C, C++, Python, Bash, SQL, Javascript, Assembly
Frameworks: Django, Pytorch, Firebase, MySQL, Pandas, SciKit-Learn, NumPy
Tools: Linux, git, IDA, Ghidra, gdb, nmap, Wireshark, AutoCAD
Other Skills: Competitive Programming, Data Structures and Algorithms, Data Science, Binary Exploitation, Reverse Engineering, Digital Forensics, Incident Response, Web Penetration Testing, Cryptography

Positions of Responsibility

- **Representative of IIT(BHU), Varanasi** at **12th Inter-IIT Tech Meet**, annual technology contest among all major colleges of India *2023*

- **Core Member** of the **Club of Programmers (COPS)** under the **Science and Technology Council (SNTC)**, actively contributing to the **advancement of technical skills** and **collaborative programming initiatives** *Ongoing*

- Actively engaged as a **Capture The Flag (CTF) Player** within the **esteemed IIT(BHU) Cybersec team**, currently achieving a notable **rank 20** in India. Achieved proficiency in **cybersecurity challenges, strategic problem-solving, and collaborative teamwork** *Ongoing*

- Led the **organization and execution** of a highly engaging **Capture The Flag (CTF)** competition as an **Event Organizer** for **Technex 2024**, an annual technical festival organized by IIT(BHU), Varanasi *2023-2024*

- Steered the **coordination and execution** of a dynamic **Freshers Capture The Flag (CTF)** competition as the **Event Organizer** for **Google Developer Student Clubs (GDSC)** *2023-2024*

- **Distinguished as an Event Speaker** at the **'Introduction to CTF' workshop** hosted by **Google Developer Student Clubs (GDSC)**, delivering an **informative and engaging presentation** to **empower participants** with foundational insights into **Capture The Flag challenges** to foster **interest in cybersecurity community** *2023*

Extracurriculars

- Featured as an **Event Speaker** during the **Freshers Orientation** organized by the **Club of Programmers (COPS)**, delivering a **compelling presentation to guide and inspire** incoming students *2023*

- Achieved **4th position** in **Lawn Tennis** during **Spardha**, the annual sports fest of **IIT(BHU), Varanasi** *2023*

- Received an **Honourable Mention** in the **Minimal Poster Design Challenge**, organized by the **Design Club of IIT(BHU), Varanasi** *2022*

- Inducted into the **Hall of Fame** during **Hacktoberfest** for exceptional contributions, successfully merging **6 Pull Requests** *2023*