

Diya Bansal

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EDUCATION

Cornell University, College of Engineering
Bachelor of Science in Computer Science

May 2025

Cumulative GPA: **4.11 / 4.00**, **Dean's List All Semesters**

Relevant coursework: Objected-Oriented Programming & Data Structures, Discrete Structures, Statistics & Probability, Multivariable Calculus, Linear Algebra, Engineering Applications of Operations Research

EXPERIENCE & SKILLS

Summer Intern for Machine Learning, Metacube Software

Jun 2022 – Jul 2022

- Performed named entity recognition on a section of a financial annual report of a company using SpaCy, NLTK, & TextRazor APIs
- Labelled entities confidently by analyzing the tags the APIs produced and identifying identities which had 2 out of 3 similar tags
- Built a machine learning model using a simple decision tree regressor to predict housing prices for users based on preferred features

Project Team Member, Cornell University Sustainable Design: Currents

Feb 2022 – Present

- Collaborating as part of a team that is working on incorporating high-efficiency HVAC (heating, ventilation, and air conditioning) sensors, various tracking technologies, and machine learning to automate HVAC in classrooms at Cornell
- Developing an app that sets the professor's preferred temperature settings for the HVAC system

Game Developer, 'Alien Invaders'

Nov 2021 – Dec 2021

- Built a complex, interactive Python game (similar to Space Invaders) that includes programmed animation, simple collisions, and advanced game features

Co-founder & Website Developer, '[Unravelling Thoughts](#)'

Apr 2020 – May 2021

- Conceptualized and designed a mental-health platform for students of my school to anonymously message student-volunteers and school-counselors about their worries, concerns, and anxieties
- Incorporated features such as a categorical registration/log-in system; dynamic live messaging and user online/offline feature; email notification and emergency alert system; automated safety blocking system; Ask&Answer forum
- Used **HTML, PHP, CSS, MySQLi, JavaScript**

Researcher, Cryptography

June 2020 – Oct 2020

- Self-studied an [online cryptography course](#) by Professor Dan Boneh of Stanford University under the research guidance of a professor from the Indian Institute of Technology (IIT)
- Implemented and coded crypto-attacks on RSA, a public encryption system (*Code on [Github](#)*), in Java and created a research report
- Coded attack with small e, Wiener's attack for small d, Chinese Remainder Theorem Attack, and the Common Modulus (N) Attack

HARD SKILLS

Computer Programming (Expert in **Java & Python**), Web Development (**Intermediate**), Jira Software (**Jira, Confluence, BitBucket**)