# Lakshay Bansal

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#### Education

#### State University of New York, Albany — Albany, NY

Jan 2024 - Expected May 2026

Bachelor of Science in Computer Science

Relevant Coursework: DBMS, DSA, Computer Networks, Software Engineering, D&AA, OS, Systems Fundamentals, Automata & Formal Languages, Assembly

#### Technical Skills

Languages: Python, C/C++, C#, Java, JavaScript

Web Development: React, Angular, Flask, Node.js, Express.js, HTML/CSS, PHP, Tailwind CSS

Databases & Cloud: SQL, MySQL, MongoDB, Google Cloud Platform (Learning AWS) DevOps & Tools: Docker, Git, Jira, IntelliJ, VS Code, PyCharm, MySQL Workbench

**Data Science:** pandas, NumPy, Matplotlib, BeautifulSoup RPA: Blue Prism, UiPath, Automation Anywhere

#### Experience

# SUNY Albany — Albany, NY

Nov 2024 - June 2025

IT Student Assistant

- Designed and implemented a digital inventory tracking system, reducing request turnaround time by 30%.
- Automated usage and repair logging, improving availability and reducing downtime across 50+ faculty.
- Delivered first-line IT support, resolving hardware/software issues to maintain operations.

#### **Projects**

## Nimbus AI — Stock Market Analytics

Present

Next.js, TypeScript, Supabase/Postgres, Python, Vercel Edge

- o Built AI-assisted backtesting dashboard with watchlists, strategy notebooks, and Monte-Carlo PnL simulations.
- o Integrated real-time charts and serverless edge functions for low-latency computations.

## Labourie — Short-Term Labor Marketplace

Sept 2025 - Present

Next.js, Prisma, PostgreSQL, Auth.js, Stripe, TailwindCSS

- Built two-sided gig platform with identity verification, escrowed payments, and job management.
- $\circ\,$  Developed ratings and analytics dashboard to improve trust and retention.

#### Java CPU & Cache Simulator

Spring 2024

Java, JUnit, Custom ISA

- Designed cycle-accurate 32-bit RISC CPU with fetch-decode-execute pipeline and two-pass assembler.
- Simulated L1/L2 caches with cycle accounting to analyze performance and hit/miss behavior.

# Tran Language Interpreter

Spring 2024

Java, Recursive Descent Parsing

- $\circ~$  Built Lexer  $\to$  Parser  $\to$  AST  $\to$  Interpreter pipeline for custom language "Tran."
- Added detailed error reporting, token lookahead, and complete JUnit suite.

## Word-Guessing Game (C Web Server)

Fall 2025

C, POSIX Threads, Sockets

- Developed multi-threaded HTTP server hosting a live word-guessing game with concurrent clients.
- $\circ\,$  Ensured memory safety, graceful shutdown, and proper synchronization.

#### Certifications

Algorithms — Stanford (Coursera), Introduction to AI — IBM, Introduction to Statistics — Stanford (Coursera), Introduction to Hardware & Operating Systems — IBM

#### Awards & Honors

2nd Place Winner, AI2EM Hackathon (Harnessing Artificial Intelligence to Manage Future Emergencies) - University at Albany (April 2024)