Varun Bali

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CAREER OBJECTIVE

As a dedicated and motivated Computer Science Engineering student, I aim to leverage my strong foundation in programming, data structures, and software development to contribute to innovative projects. Committed to continuous learning, problem-solving, and collaborating within dynamic teams to develop impactful technology solutions.

EDUCATION

Chitkara University

Bachelor of Engineering in Computer Science (7.5 cgpa)

P.K.R. Jain Senior Secondary Public School

12th (75%)

Baddi, Himachal Pradesh July 2022 - July 2026 Civil line, Ambala, India

June 2020 - July 2022

TECHNICAL SKILLS

Programming Languages: Python, C++, Javascript, HTML, CSS, Java, React, Go

Libraries and Frameworks: Pandas, Numpy, SpringBoot, React

Operating System: Windows, Linux

PROJECTS

• ToDo Web-App June 2025 - Present

Tech Used: React 19, TypeScript, Spring Boot 3.5, Java 17, MongoDB, REST API, Vite, Gradle, ESLint, Tailwind CSS, CORS, Microservices, Developed a comprehensive task management application utilizing modern web technologies. Implemented RESTful API architecture with MongoDB database integration to ensure scalable data persistence and efficient CRUD operations. Leveraged Vite build tool for optimized development workflow with hot module replacement, while maintaining code quality through ESLint configuration and comprehensive testing framework using Gradle. Applied component-based architecture principles and responsive design using Tailwind CSS, demonstrating expertise in full-stack development, microservices patterns, and modern JavaScript ecosystem. The application features production-ready build pipeline with CORS configuration for secure cross-origin requests and automated testing capabilities. GitHub

• Snake Game in C++ Nov 2023 - Dec 2023

Tech Used: C++, console input/output manipulation. Engineered a fully functional Snake game using C++ with advanced console input/output manipulation and real-time user interaction. Developed comprehensive game architecture featuring dynamic snake movement algorithms, procedural fruit generation systems, and sophisticated collision detection mechanisms for boundary and self-collision scenarios. Implemented efficient memory management and data structure optimization to handle growing snake length while maintaining smooth gameplay performance. Designed robust game loop architecture with real-time input processing for seamless directional controls and responsive user experience. Demonstrated expertise in low-level programming concepts, algorithm implementation, and cross-platform console application development while applying object-oriented programming principles for maintainable and scalable code structure. GitHub

• Rock-Paper-Scissors Game in Python

Tech Used: Python, Random module for generating computer choices, Developed a simple command-line based Rock-Paper-Scissors game in Python. The game allows users to play against the computer in a classic hand gesture game. Implemented user input validation to ensure only valid choices (rock, paper, or scissors) are accepted.

Utilized the random module to generate the computer's choice for a fair game. GitHub

CERTIFICATES & ACHIEVEMENTS

- NPTEL Certificate from IIT Madras in Python Link
- Infosys Certificate AWS for Administrators
- Infosys Certificate in Programming using C++.
- · HackIndia National Finalist

HOBBIES AND INTEREST

- Puzzle Solving
- Painting and Drawing
- Photography
- Sports (like Cricket, Football)