

Chinmay Bansal

Linkedin: <https://www.linkedin.com/in/chinmaybansal30/>
Github: <https://github.com/ChinmayBansal>

Mobile: 408-656-0967
Email: chinmaybansalsc@outlook.com

EDUCATION

- **Purdue University** West Lafayette, IN
B.S. in Computer Science (Security Concentration) *December 2024*

TECHNICAL SKILLS AND RELEVANT COURSEWORK

- **Programming Languages:** Java, Python, C, C++, JavaScript, Swift
- **Tools and Skills:** MySQL, React.js, Next.js, MongoDB, Django, FastAPI, AWS, Git, NLP
- **Relevant Topics:** Operating Systems, Computer Networks, Systems Programming, Data Structures and Algorithms, Computer Security, Computer Architecture, Information Systems, Cryptography, Object-Oriented Programming, Software Engineering

PROFESSIONAL EXPERIENCE

- **SmarterD** San Francisco, California
Machine Learning Engineer Intern *May 2023 - October 2023*
 - Built an automated Python script for classifying enterprise vulnerabilities, utilizing NLP techniques, achieving a significant classification accuracy of 90%
 - Created an NLP-based system to generate a centralized base of 500+ commonly used software names from vulnerabilities, supplying clients with prioritized vulnerability management
 - Mitigated client vulnerabilities with 87% efficiency by leveraging zero-shot text classification to analyze over 1000 potential solutions and identify required actions based on client data
 - Integrated a logging and data classification system using pandas and NLTK, providing insights in performance and improved client metrics while reducing runtime from 8 hours to 45 minutes
- **Purdue University Computer Science** West Lafayette, IN
Teaching Assistant (CS 24000 - Programming in C) *August 2022 - December 2024*
 - Facilitated learning for 20+ students in weekly C programming labs by reinforcing theoretical concepts and providing hands-on guidance on practical programming techniques

PROJECTS

- **Spotifyfight**
 - Spearheaded the development of a full-stack React app deployed with Docker on AWS, backed by MongoDB, integrating Spotify and LastFM APIs to simulate fantasy football with 700+ musical artists in real time
 - Architected 10+ RESTful API endpoints for backend–frontend communication, thoroughly tested with Postman; incorporated UI elements and custom error handling to enhance user experience
- **StockTeller** stockteller.chinmaybansal.com
 - Launched a full-stack trading insights platform on Render using FastAPI, PostgreSQL, React, and VADER NLP to parse 15,000+ Reddit posts across 6,500+ stock tickers, surfacing emerging market trends in real time
 - Designed a multi-factor scoring engine that fused retail sentiment, technical indicators, and Alpha Vantage data to generate Buy/Sell/Hold ratings; helping investors prioritize decisions and discover new opportunities
- **Wireminnow**
 - Engineered a packet analysis tool in C to parse PCAP files, inspect network traffic, and display packet details across 4+ protocols including IP, TCP, UDP, DHCP, and ICMP
 - Implemented features to decode timestamps, convert raw data into human-readable formats, and manage headers/payloads; tested on 5,000+ packets in simulated traffic
- **Xinu OS Development**
 - Developed essential OS functionality in C, including priority-based process scheduling, inter-process communication, and semaphore-driven synchronization for efficient multitasking
 - Constructed a thread-safe memory allocator utilizing a first-fit allocation strategy, block coalescing to minimize fragmentation, and integrity checks to enhance kernel reliability