Shubha Swarnim Singh

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Education

The College of Idaho, Computer Science and Business Administration

August 2022 - May 2026

• Honors Student, Dean's List, Honor's GPA: 3.77/4.0

Experience

Data Analyst Intern, Albertsons Companies

June 2025 - Present

- Developed Power BI and OMNI dashboards enriched with ML forecasts (Random Forest, XGBoost) to analyze \$2B+ sales across 2,200+ stores, enhancing category strategy and CAPEX decisions.
- Automated store segmentation and financial modeling for a multi-year Butcher Block plan targeting \$1K PWPS.
- Applied clustering and geospatial analysis to define consumer/store archetypes and optimize merchandising.

IT Intern, College of Idaho

Dec 2022 - May 2023

- Deployed MFA on 1,000+ devices, achieving 90% success with secure token validation.
- Maintained biological species database with 1M+ records.

Alumni & Events Technician, College of Idaho

Dec 2022 - Present

- Provided technical support at major alumni events, including a \$1.12M fundraiser.
- Enhanced alumni database for better outreach.

Projects

Senate Voting System GitHub

- Engineered a full-stack online voting app using Node.js, Express, and SQLite, ensuring real-time vote processing and fault-tolerant infrastructure
- Designed a scalable WebSocket-based architecture for instant vote updates, maintaining 99.99% system uptime under high concurrency.

In-Memory Search Engine

GitHub

- Developed a high-performance in-memory file system search engine in Python that indexes and searches text files with sub-millisecond query times.
- Implemented recursive directory crawling to parse .txt files, building an efficient word-based inverted index.

Investment Calculator GitHub

- Analyzed 2,500+ NASDAQ stocks to identify those with a 10+ year uptrend.
- Designed an algorithm to support consistent, data-driven investment decisions.

3D Model for Dorms In Progress

• Creating a 3D model for dorms in our college using Node.js, JavaScript, and Blender and collaborating with the IT department to integrate it into the official college website; designed for over 800 students at the College of Idaho.

Leadership

- ASCI Treasurer (2024-Present) & Senator (2022-2024): Managed \$100K budget, ensuring effective fund distribution and financial transparency; previously served as a Senator.
- Consul, Sigma Chi (2025-2026): Led the fraternity, overseeing operations and brother development.
- Resident Assistant (2022-Present): Built inclusive community, resolved conflicts, and mentored peers.
- President, Boxing Club (2023-Present): Restarted and grew the club and built a supportive fitness community.

Technical Skills

Programming Languages: Python, JavaScript, PHP **Web Development**: HTML/CSS, BootStrap, Websocket **Frameworks**: NodeJS, ExpressJS, AngularJS, Flask

Databases: SQL, SQLite3 **Version Control**: Git/GitHub

Tools & Analytics: Power BI, OMNI, Tableau, Excel

Machine Learning: XGBoost, Random Forest, K-means, SHAP, Scikit-learn