

## SATVIK SHANKAR

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### DESCRIPTION:

I am a dynamic and motivated undergraduate student studying computer science with a focus on AI/ML and full-stack development. Knowledgeable in both front-end technologies; significant projects include demonstrations of API development and integration skills. A proactive leader in extracurricular activities who has a dedication to excellence and excellent organizational abilities.

### EDUCATION:

National University of Singapore (NUS)	Aug 2022 – Jul 2024
Bachelor of Science in Computer Science (CAP: 4.2 /5)	
(Minor: Economics and Quantitative Finance)	
Kalinga Institute of Industrial Technology	Aug 2024 – Apr 2027
Bachelor's degree in computer science (CAP: 8.9 /10)	
Sanskriti School, New Delhi	Jul 2016 – May 2021
High School Diploma	
Central Board of Secondary Education, Class XII - Grade: 95.4%	

### WORK EXPERIENCE:

**Software Engineer – ML | National Informatics Centre (NIC) – INDIA | MAY 2024 – JUL 2024**

**Real-Time Face Recognition Project | [Github](#) | [Project Report](#)**

- Developed a face recognition system using computer vision techniques, achieving 85% detection accuracy
- Implemented face detection using Haar-Cascade Classifier and collected training data from 200+ samples
- Applied feature extraction methods including LBP, HOG, and ORB to improve recognition capabilities
- Built and tested multiple ML models for facial recognition with an emphasis on real-time performance
- Created a functional user interface with Flask to display recognition results and system metrics

### PROJECTS:

**Investly (Orbital) | [Live Link](#) | [Certificate](#)**

- Architected a comprehensive portfolio optimization web application using TypeScript, Next.js, and Alpha Vantage API, analyzing financial data for 500+ assets across multiple classes (Commodities and Stocks)
- Engineered a sophisticated investment algorithm that assesses user risk tolerance profiles and projects optimal ROI scenarios, processing 10,000+ market data points to generate personalized investment recommendations
- Built a proprietary asset allocation model that improved projected portfolio returns by 18% while maintaining client-specified risk parameters
- Implemented responsive UI with TypeScript, Next.js, React hooks, and Tailwind CSS, resulting in 40% improved user engagement and 35% faster page load times
- Created a visualization dashboard with Chart.js displaying real-time performance metrics, helping users understand complex financial data through intuitive graphical interfaces

**Playlist Porter (In progress)**

- Developing a cross-platform web application using React, Node.js, and Express that seamlessly integrates with Spotify and Apple Music APIs
- Spearheading the development of a robust API integration layer, facilitating smooth connectivity and data exchange between Spotify and Apple Music APIs.
- Engineering a user-friendly playlist conversion algorithm, streamlining the process of transferring playlists from one music streaming platform to another.

### POSITIONS OF RESPONSIBILITY:

**Project Director – Sports Interest Group, School of Computing, NUS**

- Led a team of 8 coordinators to organize 15+ sporting events per semester for 500+ computing students
- Increased participation in inter-faculty competitions by 35% through strategic outreach and engagement initiatives
- Managed an annual budget of \$12,000, optimizing resource allocation to expand program offerings by 20%
- Implemented digital attendance and feedback systems, improving event management efficiency by 40%

**Vice-Captain of High School Badminton team**

- Co-led a team of 12 players, coordinating 3 weekly practice sessions and developing training regimens
- Mentored 5 junior team members, helping improve their skill ratings by an average of 25%
- Contributed to team's 40% performance improvement, culminating in District Badminton Tournament championship
- Drove the team's efforts, culminating in a resounding triumph at the District Badminton Tournament, showcasing remarkable teamwork and perseverance

### TECHNICAL SKILLS:

Programming Languages: Python (NumPy, Pandas, OpenCV, Pillow), Java, JavaScript (ES6+), TypeScript, HTML5, CSS3, SQL

Frameworks & Libraries: ReactJS, Redux, Node.js, Express.js, Matplotlib, Bootstrap, Material UI, Next.js

Developer Tools: Git, GitHub, Postman, VS Code, Jupyter

### INTERESTS:

Financial technology, algorithmic trading, competitive badminton, UI/UX design, technical sketching

