



SOHAM SATISH BHOIR

+91 9326358058 ♦ Mumbai, IN

Email ♦ [Linkedin](#) ♦ [Github](#) ♦ [Google Scholar](#)

EDUCATION

K J Somaiya College of Engineering

BTech in Information Technology, CGPA (9.34/10)

Mumbai, IN

2020 – Expected 2024

Coursework: Operating Systems, Object Oriented Software Engineering, Data Structures, Algorithms, Networking.

K J Somaiya College of Engineering

Honours in Artificial Intelligence

Mumbai, IN

2022 – Expected 2024

Coursework: Fundamentals of Data Science, Artificial Intelligence, Machine Learning, Deep learning

SKILLS

Languages	Python, JavaScript, TypeScript, SQL, Java, C++, Dart
Quantum Computing	Pennylane, IBM Qiskit
Frontend	HTML, CSS, ReactJS, NextJS, Flutter,
Backend	NodeJS, ExpressJS, Django, Django REST Framework, Firebase
DevOps	Docker, Kubernetes, Git, CI & CD Pipelines, Nginx
Database	MongoDB, MySQL
Soft Skills	Leadership, Event Management, Writing, Public Speaking

RESEARCH PUBLICATIONS

Quantum Deep Learning Research

Ashwini Dalvi, Soham Bhoir, Irfan Siddavatam, S G Bhirud. "Dark Web Marketplace Image Classification Using Quantum Convolutional Neural Network" Paper published and presented at IEEE 2022 The International Conference for Trends in Quantum Computing and Emerging Business Technologies, Pune Lavasa, India on 13th-15th October 2022. ([Link to the Paper](#))

Quantum Computing Research

Ashwini Dalvi, Soham Bhoir, Faruk Kazi, S. G. Bhirud, "Dark Web Content Classification using Quantum Encoding", a Chapter accepted in the book titled "Methodologies and Application Of Quantum Computing in Cyber Terrorism and Security Framework", publisher Wiley, to be indexed by Scopus and offered to Web of Science. ([Link to the Paper](#))

WORK EXPERIENCE

TEDx Somaiya Vidyavihar

Full Stack Web Developer

Mumbai, IN

Jan 2022 - Current

- Utilized Figma to conduct user interviews and design an innovative and user-friendly interface that prioritized usability, accessibility, and user-centered design.
- Optimized Maintained Front-end (HTML, CSS, JS) Back-end (Django).
- Re-modeled the database using MySQL.
- Accelerated traffic up to 80%.
- Ensured seamless scalability and robust performance of a website in a production environment by hosting it on AWS Elastic Beanstalk.

K J Somaiya College of Engineering

Quantum Computing Research Fellow

Mumbai, IN

June 2022 - Aug 2022

- Conducted extensive literature review on quantum-enhanced transfer learning and quantum-neural networks.
- Developed a bespoke quantum text classifier that outperformed classical models
- Engineered the URL classification model by Classifying scrapped keywords from URLs with Quantum-Enhanced Transfer Learning.
- Achieved 96.7% accuracy in the quantum model using the quantum variational circuit.

Major League Hacking (Prep-Fellowship)

Frontend Developer

Remote

March 2022 - April 2022

- Visualized and Engineered Weather Web App using React.JS, and Firebase Authentication. • Developed portfolio website using Jekyll
- Assembled Geo-location API & Open Weather API in Weather Web App.
- Conducted code review to ensure quality and maintainability

Maalvo MSME

ReactJS Developer

Remote

Sept 2021 - Mar 2022

- Engineered User-Friendly, Reusable React Components.
- Designed User Interface & User Experience
- Modeled Pseudo Backend of an E-commerce app, and developed its Client-side business logic.

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Machine Learning Intern

Mumbai, IN

July 2021 - Nov 2022

- Designed Machine Learning Algorithm to Scrap Data from Input Text data and URL.
- Engineered Backend using Django
- Modeled User-Friendly Frontend with Bootstrap CSS JS.

PROJECTS

1) **EarthRich** – HackerStellar Hackathon 2023 Winner Apr 2023
We Engineered a robust investment platform for martian investors featuring depository-managed KYC, sustainability focused investments, ESG scores of the investing companies, custom temporal transformer model to predict to stock price and also recommend which stocks to buy or sell.

Tech-Stack: NextJS, React Native, Typescript, ExpressJS, MySQL, Transformer & Django REST Framework.

2) **Bond Bond** - Unscript Hackathon 2023 Winner Feb 2023
In just 24 hours, a bond transaction platform for retail investors featuring depository-managed KYC, real-time integration with NSE APIs, portfolio analysis, bond trading using custom matching algorithms, bond profiling, prediction and comparative analysis, transaction history, real-time notifications, price alerts, and a bond calculator.

Tech-Stack: ReactJS, React Native, Typescript, ExpressJS, MySQL, & 3D LSTM.

3) **AnyTracker** - BitNBuild Hackathon 2023 Winner Jan 2023
We built an inventory management system mobile app that tracks products using GS1 barcodes, uses AI to predict sales, has emergency SOS alerts, generates reports, and manages employee roles in a hyper-location space management system. The platform is designed using a microservice and app architecture for scalability and easy integration.

Tech-Stack: ReactJS, React Native, Typescript, ExpressJS, MySQL, & Random Forest.

4) **HighLight** - Smart India Hackathon 2022 National Finalists Aug 2022
Highlighting skillful interns for recruiters. Highlight on-boards companies and colleges on its platform. To ease the recruitment process, students who apply for internships are listed on the company's portal in the order of their compatibility.

Tech-Stack: ReactJS, React Native, Typescript, Django REST Framework, MySQL, AWS, Stream-lit & Naive Bayes Classifier.

5) **3-Commerce** - Intra College Hackathon Winner March 2022
A secure and robust marketplace for artisans. Features include Inventory Management, Sales Prediction, Multilingual Support (to pass Demographic Barriers), and counterfeit reduction of products by shipping an NFT with each product.

Tech-Stack: ReactJS, Express, MySQL, Heroku, SVM, LSTM, Polygon, Web3 & IPFS.

6) **Graph Algorithm Simulator** Jan 2021
Visualizes the BFS, DFS, Dijkstra, Kruskal's Minimum Spanning Tree, Articulation Point, and Topological Sorting algorithms on graphs input by the user on an interactive canvas.

Tech-Stack: Java, JavaFX, & NetBeans

HONOURS AND AWARDS

- Winner of Hackerstellar Hackathon among 200+ participants for the combined track of Web/App Domain, Blockchain and AI/ML (April 2023)
- Winner of UnScript National Level Hackathon among 1200+ participants for the track of Web/App Domain (February 2023)
- Winner of BitNBuild Hackathon among top 250+ participants for the track of Web/App Domain - (January 2023)
- Winner of Technical Paper Presentation on quantum computing in Abhyantriki tech-fest - (November 2022)
- Smart India Hackathon Grand Finalist (National Level) - (August 2022)
- Winner of Smart India Hackathon (College Nomination Round) among 250+ participants - (March 2022)
- Created Stirling engine with an efficiency of 56% and presented at Indian Institute of Technology, Bombay in 2017 among a pool of 1000 students Nationwide - (December 2017)
- All India Rank 2 in Science Talent Search Examination - (July 2014)