Sahil Subodh Bane

Available from May 2025 - December 2025

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Education

Northeastern University   *Sept. 2024 – Present*
MS in Computer Science
- GPA: 4.0/4.0
- **Coursework:** Algorithms, Foundations of Artificial Intelligence, Program Design Paradigm, Database Management Systems

University of Mumbai   *Feb. 2021 – May 2024*
BE in Electronics and Computer Science (Honors in Blockchain)
- GPA: 9.42/10.0

Skills

Languages: C, Java, Python, C#, SQL, JavaScript, Solidity, Dart, HTML, PHP, R

Development Tools: OpenCV, Scikit-Learn, NodeJS, ExpressJS, Flutter, React, Ganache, MongoDB, Truffle, Web3js, Unreal Engine, Unity, Pytorch, TenserFlow, AWS

Experience

Teaching Assistant   *Boston, MA*
Northeastern University   *Jan. 2025 – Present*
- **Helping 20 students succeed** by providing timely and constructive feedback and tutoring sessions for the **graduate level Intermediate Programming Course**.

Technical Intern   *Mumbai, India*
Rosefield Energy Tech.   *Sept. 2023 – Dec. 2023*
- **Collaborated with the technical team** to design and launch **3** visually appealing, user-friendly websites, increasing user engagement. Developed the Rosefield Conference **website** for the Lubricants and Fuels event, resulting in a **30%** increase in online registrations and a **20%** boost in event attendance.
- **Analyzed and identified warehousing solutions** to clients using data analytic tools improving inventory management efficiency.

Organization Lead   *Mumbai, India*
Game Developers Association   *Aug. 2022 – Aug. 2023*
- **Led** development of **Ashtagraha**, an educational game teaching planetary science to school children, which won **Mumbai Hackathon**, **Smart India Hackathon**, and was a finalist in the **E-Cell Idea Competition**.
- **Co-founded** one of the **first** game development communities in the city, fostering innovation and collaboration.
- **Pioneered Prop Hunt**, a **multiplayer** game that received overwhelmingly positive feedback from Devfolio, Instagram and Unstop.
- **Directed Strategem**, the association's flagship hackathon with **1,000+** participants,.securing sponsorships from

Undergraduate Research Assistant   *Mumbai, India*
Fr. Conceicao Rodrigues College of Engineering   *Sept. 2022 – May 2023*
- Conducted research on emotion recognition using Deep Learning algorithms, evaluating methodologies such as **CNN, EigenFace with PCA,** and **DeepFace** achieving and accuracy of **72%, 80% and 99.93%** respectively.
- **Published** the research paper **"Semblance Unmasker: Hidden Emotion Recognition Using Deep Learning Approach"** in **IEEE** 10.1109/ICSCNA58489.2023.10370099 ↗.

Graphic Design Intern   *Mumbai, India*
Binary Curve   *Mar. 2021 – May 2021*
- **Created** and executed engaging content for marketing campaigns, resulting in a **40%** increase in customer engagement during trade shows and promotional events over a three-month period.

Projects

AI based City Layout Optimization   *Sept. 2024 – Dec. 2024*
- Designed genetic and local search algorithm that improved connectivity between urban areas by strategically optimizing **15** intersections, contributing to reduced response times by **50%** for first responders in critical situations.
- Designed and implemented a **constraint-driven cost function** for a local search agent in a grid environment, enhancing the **A* pathfinding algorithm** to account for path constraints. This optimization ensured the agent consistently adhered to predefined movement rules with **100% accuracy**, improving decision-making efficiency in constrained navigation scenarios.

Phishing Detection using Particle Swarm Optimization   *July. 2023 – May. 2024*
- Conducted in-depth research on **optimizing phishing detection models** using Random Forest and XGBoost classifiers and employing Particle Swarm Optimization to fine-tune model performance. This approach resulted in a significant **increase** in accuracy by **20%**.