SAKSHAM TIKOO

Software Engineer | ✉ tikoosaksham@icloud.com | Mumbai | 🔗 Linkedin

Education

Veermata Jijabai Technological Institute (VJTI)   **August 2019 - May 2023**
Bachelor of Technology in Computer Engineering, CGPA: 8.83/10 (First Class)   *Mumbai, India*

Kendriya Vidhalaya Andrews Ganj   **March 2013 - March 2018**
Higher Secondary School Certificate, Score: 91.80%   *Delhi, India*

Research work and Projects

TReLU | *Research paper* | *[IEEE](#)*

- Collaborated with Prof. Shrinivas Khedkar to develop a new methodology to train Network Intrusion Detection Systems aimed at improving accuracy on newer Intrusion techniques.
- Implemented novel TReLU activation function on a hybrid model of CNN and BiLSTM with SMOTE and stratified K cross validation for data augmentation and used thread based model parallelization to reduce training time.
- Paper was presented and accepted at the IEEE - 14th ICCCNT 2023 and has been published in the IEEE Xplore.

Nirman | *Python, EJS, Javascript* | *[Github](#)*

- A web application to scrap data from the dark web which is processed it to categorize relevant or irrelevant data.
- Used ConceptNet to extract intelligence and generate email requests for proprietary databases using amazon SES.

VJTI Helper | *React-Native, Firebase* | *[Github](#)*

- Developed an application for college students to keep track of the college specific activities like class attendance, GPA, TODO tasks, notices, and updates from the college.
- Implemented multifactor authentication using firebase, stored user data in firestore.
- Also used pie charts and graphs to visualize data like student's attendance.

Research Interests

- Multimodal AI with GPT and SORA and it's impact on education in remote areas across the globe.
- Algorithmic optimizations in Deep Learning models for Intrusion Detection Systems.

Experience

Morgan Stanley *Software Engineer*   **August 2023 - Present**

- Redesigned and modernized a legacy application to provide business users with actionable insights into the impact of Funds and their Managers on the firm's performance, empowering them to make data-driven, strategic decisions.
- Implemented 2 tier caching mechanism for the application, achieving a 72% reduction in processing latency. This optimization decreased the application load time from 25 seconds to just 7 seconds.
- Currently developing a unified caching solution using Redis and MongoDB which will serve multiple applications across the organization.

Morgan Stanley *Software Engineer Intern*   **May 2022 - July 2022**

- Upgraded a legacy codebase from .NET to Angular, enhancing both the UI and UX, resulting in a more intuitive user experience and significantly reducing training costs for new users.
- Implemented Single Sign-On (SSO) for seamless integration between applications, enabling automatic population of dynamic fields through the use of access tokens, improving user workflow and reducing login friction.

iMocha *Problem Setter*   **August 2021 - April 2022**

- Created coding challenges based on Data Structures and Algorithms. These challenges were used by our clients for recruiting tech talent.
- Provided solutions, test cases to coding challenges submitted by others and verified their solutions as well.

Positions of responsibility

Head, Community of Coders VJTI

- Head of Data Structures and Algorithms division of my college and under my leadership organized multiple coding events in my college like "Codetracks", "CTF" and "Codestorm".
- Taught C/C++ and DSA at various workshops attended by 200+ juniors.

Mentor for Inheritance, COC

- Mentored 2 teams for their app development projects.
- Helped them learn various tools and frameworks required to build their project.

Achievements

- Stood 1st in a class of 89 students in five courses and eight labs during my undergraduate studies.
- ICPC 2021-22 Regionalist: Ranked top 5% among 4992 teams in the prelims and top 100 in nationals.
- Represented college in national level Indisafe Hackathon organised by Google Developers Student Club.
- Won and secured top 3 ranks in more than 10 programming contests held across colleges over India.
- Competitive Coding: Codechef Max Rating: 1851 (4 stars), Codeforces Max Rating: 1580 (Specialist).

Technical Skills

Programming Languages: C, C++, Java, Javascript, Python, Scala, SQL, TypeScript
Developer Tools: IntelliJ IDEA, Git, Github, Jenkins
Technologies/Frameworks: Angular, AWS, Django, Docker, Firebase, Flask, Hadoop, Jenkins, Kubernetes, NodeJS, React, React Native, OpenCV, PyTorch, Spark, Springboot, Tensorflow
Database and Caching:DB2, Firestore, Hazelcast, MongoDB, MySQL, Redis