

EDUCATION

- **Ahmedabad University** Ahmedabad, India
Bachelor of Technology in Computer Science and Engineering; *GPA: 2.97/4* *Jul 2019 – Jun 2023*

EXPERIENCE

- **Tattle Civic Technologies** *Aug 2023 - Present*
 - **Tattle** - build's tools and datasets to understand and respond to inaccurate and harmful content. They are a community of technologists, researchers and artists working towards a healthier online information ecosystem in India.
 - I work on a browser extension called "**Uli**" that redacts slurs and abusive content, archive problematic content, and collectively push back against online gender based violence
 - Programmed a slur crowd sourcing feature. Users can crowd source abusive words and its metadata using Uli
- **Genuin Inc.** *Jun 2022 - Jul 2022*
 - Developed apps using CameraX API, work manager, and coroutines. Extracted live video buffer data for ML purposes.
- **Ahmedabad University** *May 2021 - Mar 2022*
 - **Image Quality Index** - Built a Perceivable Image Blur Quality Index, aiding image classification using SSIM, MSE, and PSNR
 - **Analysing COVID-19 Second Wave** - Studied people's psychological and physiological effects and experiences in the second wave of COVID-19 with the help of data analysis. This work is [published](#) in the Journal of Psychological Research
- **Ahmedabad University** *Jun 2022 - Jul 2022*
 - Teaching Assistant for the course of Discrete Mathematics. Graded tests and took tutorial sessions.

UNDERGRADUATE THESIS

Analysing the Spread of the Toxicity Spectrum on Twitter - I proposed a novel model to capture the spread of hate speech on Twitter. Instead of previous modelling approaches like Spread Activation Modeling (SPA) and SIR models, I recognised that toxicity varies across a spectrum. I analyzed millions of tweets and found that toxicity increases over time, both in the total number of toxic tweets and in the average toxicity of original tweets and retweets. To capture this spread of toxicity, we categorize users as Amplifiers, Attenuators, or Copycats based on their interaction patterns. Our model successfully replicates the increase in toxicity in simulated and real-world networks (Barabási–Albert graphs).

I then looked at hate as time series and used Transformers and Graph CNN's to forecast the spread of hate speech on Twitter.

PUBLICATIONS

1. **Vaidya, Aatman**, Nagar, Seema and Nanavati, Amit. "Analysing the Spread of Toxicity on Twitter" *International Conference on Data Science and Management of Data (Cods-Comad)*, 2023. **to appear**
2. **Vaidya, Aatman**, Nagar, Seema and Nanavati, Amit. "Forecasting the Spread of Toxicity on Twitter" *IEEE International Conference on Cognitive Machine Intelligence*, 2023. **to appear**
3. Pandit, S. A., **Vaidya, A.**, Shah, A., Shah, E., Iyer, I., Golani, J., ... & Dave, T. (2022). "Coping Resources of Young People Experiencing COVID-19 Second Wave, in India: A Preliminary Study". *Journal of Psychosocial Research*, 17(1), 189-199. [Link](#)

ACHIEVEMENTS

- **Bosch Future Mobility Challenge** - Programmed and Engineered an **autonomous driving car** to navigate a miniature city. Devised path planning algorithms, and optimised object detection to facilitate autonomous driving. One of the 24 teams out of 118, selected for the finals in Cluj, Romania.
- Won the Open-Source Track at the Ingenious Hackathon 3.0
- Hult Prize Regionalist - Ideated a sustainable fashion startup and won the college round.

PROJECTS

- [Ambutrack](#) - Uber for Ambulances. Helps an ambulance reach faster to a patient. The app is made in Java and Android Studio
- [Real-time File Sharing Website](#) - Developed a real-time file sharing website using Nodejs, Multer, and Express. The website transfers files over a peer-to-peer network
- [Coronary Artery Disease Prediction](#) - Developed a supervised machine learning model using k-NN and Logistic Regression classifiers to predict an individual's 10-year future risk of Coronary Artery Disease.
- **Connected by Misery, Separated in Space** - Created a Visual Space Intervention Art depicting the atrocities on Dalits in Gujarat (2001-2013) using graphs, showcasing their links to districts and interactions between atrocities

SKILLS

Languages:	Python, Java, C/C++, JavaScript, Kotlin
Frameworks/ Libraries:	PyTorch, Tensorflow, Nodejs, OpenCV, networkx, CameraX, Sequelize ORM
Databases and Developer Tools:	MySQL, MongoDB, Git, GitHub, Android Studio, Firebase

LEADERSHIP / EXTRA-CURRICULAR ACTIVITIES

- Android Study Jams Facilitator, conducted 3 sessions teaching Android Development in Kotlin to 40+ students.
- Committee member at Programming Club. Co-organized and curated 35+ Web Development, Machine Learning, and Technology events, with over a net footfall of 1900+ people.
- **Student Ambassador** - Worked at the Office of Undergraduate Admissions and assisted Campus Tours.
- **Volunteer at Humankind** - Created Educational Content for underprivileged people in Ahmedabad on Hygiene and Money. Investing.