SARANSH CHOPRA

 saranshchopra7 | saransh0701@gmail.com | Saransh Chopra | Saransh-cpp | WhiteViolin

EDUCATION

Cluster Innovation Centre, University of Delhi   New Delhi, India
B.Tech. Information Technology and Mathematical Innovations | Computational Biology | CGPA: - 9.31   *2020 – 2024*

EXPERIENCE

AiView   New Delhi, India
Research intern   *September 2021 – present*
- Built an OCR pipeline to pre-process and read different texts for visually impaired people by building python package/library from scratch.
- Developed a CI/CD pipeline for the package using GitHub Actions and followed test-driven-development.

Google Summer of Code   Remote
Open-Source Developer at PyBaMM, NumFOCUS   *May 2021 – August 2021*
- Built an automated Twitter Bot capable of tweeting random Battery Degradation Simulations and replying to requested simulations with the appropriate GIFs, from scratch.
- Developed a CI/CD pipeline using GitHub Actions and Heroku, and followed a micro-services based architecture to keep two major functionalities separate.

MoneySeeds   Remote
2D Animator   *August 2020 – September 2020*
- Developed animated content using a Python based, Open-Source Mathematical Engine library called Manim.
- Used MikTex for writing LaTeX in the videos and FFmpeg for video processing .

PROJECTS

PopItUp [Android, Kotlin, Firebase, Firestore, Google Sceneform SDK, Google ARCore SDK]   *May – August 2021*
- An Augmented Reality game developed in native android with Firebase and Firestore as the backend and database.
- Externally injected Sceneform SDK into the app and used FirestoreRecyclerView to load live data into the leaderboard.

MemeTastic [Flutter, NodeJS, Elasticsearch, Kibana, CI/CD, Google Cloud]   *May 2021*
- A full stack Flutter application with a backend in NodeJS that runs every 30 minutes on a CI/CD pipeline developed using GitHub Actions to ingest latest meme data into Google Cloud hosted Elasticsearch.
- The Flutter frontend then pulls this data providing a feature to search any meme using the ngram analyser.

ChaoticEncryption [Python, ODEs, Encryption-Decryption, Pseudo-Random Number Generator, Matplotlib]   *March 2021*
- An Encryption-Decryption script that uses Logistic map and Lorenz System of Differential Equations as PRNGs.
- Along with encrypting images, it also aims to connect chaos, encryption and fractals together.

RELEVANT SKILLS

Languages:	Python	C/C++	Javascript	Java	Dart	Kotlin
Frameworks:	Flutter	ReactJS	ExpressJS	NodeJS	React-Native
Platforms:	Linux	Web	Windows	Heroku	Google Cloud	Tensorflow	Tesseract
Tools:	Git	Elasticsearch	Kibana	Firestore	MongoDB	Firebase	Docker	CI/CD
Other Skills:	Content Writing	Public Speaking	Communication	Team-Work

OPEN SOURCE EXPERIENCE

PyBaMM:	Fixed various bugs, added example notebooks, updated the existing documentation and added new features, for releases 0.4.0 and above.
Color-Science:	Implemented the conversion between HCL and RGB colourspaces.
Open-Source Contributor:	Mexili Winter of Code (2nd / 250+)	Girlscript Summer of Code (98th / 6000+)	Cross Winter of Code (2nd / 250+)

AWARDS AND ACHIEVEMENTS

Hackathons:	Winner of the Elastic X Code for Cause hackathon (out of 2500+ registrations).
Asteroid Discovery:	Discovered an asteroid having a fixed orbit around Sun by analysing the data of Pan-STARRS
Talks:	**The Faraday Institue, UK** - Presented the Google Summer of Code project in front of researchers (master's/doc/postdoc) from around the world.
	IIT Madras - Organised and delivered talks on Python in research and, Git and GitHub.