Aitik Gupta

Website: aitikgupta.com | LinkedIn: aitikgupta | GitHub: aitikgupta

Email : aitikgupta@gmail.com
Mobile : +91-9821633928

EDUCATION

Indian Institute of Information Technology, Gwalior Madhya Pradesh, India
Integrated Bachelors and Masters in Information Technology *July 2018 – Expected May 2023*

EXPERIENCE

Software Engineer Intern Bengaluru, India; Remote
Swiggy - SuprDaily | Homepage | Grocery Tech | 10M+ users *March 2022 – June 2022*
- Composed 3 servers in Go to extricate real-time **demand shaping**, with support for **multiple versioned** migrations
- Formulated **LLDs** for all existing demand shaping APIs, 5 events and cron jobs in warehouse management system

Backend Engineer Intern Bengaluru, India; Remote
FamPay Inc. | Homepage | FinTech | 5M+ users *September 2021 – January 2022*
- Revamped **referral** engine with a **conditional data structure**, fixing bugs in production impacting ~130K rewards
- Implemented endpoints and 4 **HCC entities** to get user's monthly **transaction summary**, masked card, VPA, etc.
- Modularized **rewards** status engine to incorporate allocation & processing of **temporary claimed** reward conditions

Google Summer of Code Remote
NumFOCUS, sub-org: Matplotlib | Project | Report | 560M+ installs *June 2021 – August 2021*
- Revisited library's core module to migrate from **font-first** to **text-first** approach with a **caching layer**, along with **multi-font** embedding; affecting 100% workflows (virtually the complete userbase)
- Devised a per-glyph **Font-Fallback** algorithm, letting text renderer find each by iteratively parsing further families
- Handled **Font-Subsetting** (valuable for CJK & commercial fonts), reducing output PDF/PS document sizes by 90%

Software Engineer Intern Pune, India; Remote
RapidQuest Solutions | Homepage | Healthcare | 10K+ users *July 2020 – December 2020*
- Improved and integrated native **cross-platform C++** codebase with **Android JNI** wrappers, processing with **TFLite**
- Built a utility to improve patients' journey by facilitating 100% online **physical rehabilitation**, animating 3D characters' **armatures** using body movements, removing redundancy in angle measurements by 80% withal

TECHNICAL SKILLS

Languages: Python · Golang · JavaScript · C++
Developer Tools: Linux · Git · GitHub · pip · npm · VSCode · PyCharm · Goland · Anaconda · Jekyll
Frameworks | Libraries: Django · ent · Flask · GraphQL · PostgreSQL · MongoDB · ReactJS
Domain Knowledge: Backend Engineering · Font/Text Rendering · Machine Learning

PROJECTS

SocioMark | *FastAPI, ReactJS, MongoDB, OpenCV* *April 2021*
- Engineered the **steganography module** which embeds/decodes a unique user_id (SHA) inside an image in the form of 256-bit binary digits, additionally implementing the logic behind when to **encode/decode**
- Defined and developed the **backend endpoints**, their routes, model architectures and **database schema** in FastAPI
- Deployed the server (Heroku) and client (Netlify) with 3 linter checks for every pull request via **GitHub-Actions**

VSCode-GitHub-Projects | *TypeScript, Apollo GraphQL, Svelte* *March 2021*
- Launched an **extension** that brings GitHub's Projects into Visual Studio Code with more than **12K downloads**
- Established persistent GraphQL communication by **polling** between 3 WebViews rendered by Svelte and GitHub

swi-ml | *Python Library, NumPy, CuPy* *February 2021*
- Authored a lightweight Python library with more than **2K installs**, implementing a subset of machine learning algorithms written **from scratch** - with a **switchable runtime** backend
- Interfaces acceleration on a 1-core **CPU** backend as well as on a multitude of cores on GPU with **CUDA** backend

PUBLICATIONS

ActiveNet: A computer-vision based approach to determine lethargy Aitik G., Aadit A.
ACM India Joint International Conference on Data Science and Management of Data *January 2021*