Vitthal Bhandari

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Skills

Languages: Python, C++, TypeScript, JavaScript
Technologies: Next.js, React, Redux, Flask, Elasticsearch, Jenkins, Hugging Face, PyTorch

Experience

Software Engineer II, American Express – Gurugram, India   **Mar 2023 – Present**
- Created an automatic dependency manager using Next.js, Sanic, and TypeScript for highlighting and resolving package conflicts and vulnerabilities in Node and Python projects. Work was selected for presentation at Amex's internal hackathons: GrowthHack 2023 and DevCon 2024
- Redesigned the UI of the Ask Finance chatbot using React and Redux to help improve accessibility and support graphics (images and tabular data) for its 5K+ monthly user sessions
- Developed a language translation feature using Hugging Face's MarianMT framework for translating chats from English to Spanish and vice-versa

Software Engineer I, Standard Chartered Bank GBS – Bengaluru, India   **July 2021 – Feb 2023**
- Led a team of 4 to develop an API management framework in TypeScript, React, and Flask for creating configurable APIs. Used by business teams to create 1300+ APIs to fetch, add, and update data from Dremio and Oracle SQL data lakes
- Built reusable UI components in JavaScript, React, and Redux, REST APIs in Flask for the inhouse chatbot Maya, improving the look and flow, while enhancing its capability to analyze data with speed and scale

Software Engineer Intern, PayPal – Bengaluru, India   **Jan 2021 – July 2021**
- Designed and built the 1st real-time metrics dashboard for PayPal's DropZone platform using Javascript, React, and Google Charts, created REST APIs using Spring Boot, and used Elasticsearch for indexing >2M file transfers/hour
- The dashboard is being used in production to analyze file transfer patterns, user demographics, and user behavior across geographies and time zones

Software Engineer Intern, Standard Chartered Bank GBS – Bengaluru, India **May 2020 – July 2020**
- Implemented a recommendation engine using React and Flask over a set of 100K+ transactional records
- Leveraged Elasticsearch for indexing the records and REST APIs to perform nested search queries in <2s

Projects

Minimalist Tile Matching Game   **GitHub** / **Demo**
- Implemented a responsive version of the tile-matching game in a Vercel project using Next.js and TypeScript. Used Material UI for components and Redux for state management

Homophobia/Transphobia Detection in Social Media Comments   **GitHub** / **Paper**
- Fine-tuned BERT-based pre-trained language models using the transformers library for detecting homophobia/transphobia in the shared task at LT-EDI Workshop at ACL 2022
- Implemented easy-data-augmentation (EDA) to tackle class imbalance and achieved ranks 3, 6, and 9 in code-mixed, Tamil, and English tracks with macro-averaged F1 scores of 0.54, 0.72, and 0.46 respectively

Sentiment Analysis With Self-Trained Word Embedding   **GitHub**
- Implemented word2vec models and stochastic gradient descent in Python without using external libraries, trained custom word vectors on the Reuters Corpus from NLTK
- Built an RNN in Python and NumPy for classification on the IMDB reviews dataset using these vectors

Education

Birla Institute of Technology and Science Pilani, BE in Computer Science   **July 2021**