Aakash Bakhle

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EXPERIENCE

Nintee — Pune
Software Engineer — Jan 2023 - Present

- Created **content creation pipelines** for our apps that helped learn new words and converted books into an engaging format. These consisted of multiple prompts using **GPT-4**, generating quizzes based on a single word, active learning based on a book name. Used **Claude Opus as a quality control analyst** to review and modify content.

- Worked extensively on the **backend of the Nintee app** which was deployed on GCP. The app helped users build or break habits with the help of a chatbot and a social feed. Designed database models, background processing via RQ workers. Proactively learnt and setup a **TDD** culture in the Engineering team.

- Designed the **Nintee Bot on Discord** to assess, breakdown and respond with an actionable plan based on the challenge mentioned by the User. The users would also get **contextual reminders** that were designed to be nudges.

- Created a health search engine based on **150k minutes** content from 6 YouTube channels. Used Apache Airflow for fetching new vidoes everyday and processing into vectors. Progress was tracked on Postgres and vectors were stored on Pinecone. The service was integrated into the then Nintee website and would be later included in the Discord Bot via commands.

Centre for Development of Advanced Computing (C-DAC) — Pune
Project Engineer (NLP R&D) - Applied AI Group — Mar 2021 - Jan 2023

- Worked on end-to-end Coreference Resolution on English texts using SpanBERT. Wrote cluster head finding algorithm and resolution logic to handle cataphora and anaphora in input text.

- Modified OntoNotes 5.0 programatically to reduce large clusters while retaining named entities for coreference resolution task. Achieved **77%** using AllenNLP trainer on RoBERTa-large model.

- Generated synthetic data catering to Indian demography, trained DeepMatcher on said data to identify potential duplicates in real-world data. **Reduced comparisons by 98%** by using phonetic similarity and blocking mechanisms.

- Working on end-to-end 360-degree profiling of person entities from unstructured text. Using BERT based model for relation extraction, building custom dataset for said task.

Cognizant Technology Solutions — Chennai - Bangalore
Developer - Oracle Fusion Middleware — Nov 2017 - Feb 2020

- Wrote Oracle Data Integrator (ODI) code for data migration from Oracle DB to Microsoft SQL Server and Java Message Service to XML to Oracle DB for a retail client based out of the middle-east.

- Led a team of 3 members, deployed ODI code in production **without errors or escalations from clients.**

- As a part of the performance tuning team for a US based retail client, **reduced running time of two migration jobs** by 70% and 83.33%.

EDUCATION

Centre for Development of Advanced Computing (C-DAC) — Pune
PG Diploma Artificial Intelligence - *Grade: A* — Feb 2020 - Feb 2021

Smt. Kashibai Navale College of Engineering — Pune
B.E. Computer Engineering - *72%* — Aug 2013 - Jul 2017

LANGUAGES AND TECHNOLOGIES

- Python

- PostgreSQL, Redis, Pinecone

- Langchain, Llamaindex, Instructor, HuggingFace, Ollama

- Git, FastAPI, Streamlit, Docker, Terraform, GCP