Gitesh Chawda

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EDUCATION

California State University, Fullerton

Master of Science - Computer Science; CGPA: 3.47/4.00

California, United States August 2024 - Present

Coursework: Advanced Database Management System, Software Standards and Requirements, Advanced Algorithms, Web Back-end Engineering, Modern Software Management, Natural Language Processing, Artificial Intelligence

Pimpri Chinchwad College of Engineering

Pune, India

Bachelor of Engineering in Computer Engineering; GPA: 3.42/4.0

August 2019 - July 2023

Coursework: Advanced Database Management System, Software Standards and Requirements, Advanced Algorithms, Web Back-end Engineering, Modern Software Management, Natural Language Processing, Artificial Intelligence

SKILLS

Python, C++, JavaScript, TensorFlow, Keras, PyTorch, Scikit-learn, NumPy, Pandas, Matplotlib, PIL, OpenCV, HuggingFace, Langchain, Groq, MySQL, MongoDB, Oracle, Flask, ReactJS, GraphQL, AWS (Cognito, AppSync, API Gateway, Lambda, S3, CloudWatch, Secrets Manager), GitHub, VScode, Jupyter Notebook, Google Colab

Work Experience

Fiserv Chennai, India

 $Software\ Developer$

July 2023 - August 2024

- o Developed new app features and implemented Disaster Recovery using React.js, GraphQL, AWS, and GIT.
- Addressed security findings, collaborated with the AppSec team, and utilized BurpSuite for data tampering prevention.
- o Gained expertise in AWS AppSync, Cognito, and authentication libraries, enhancing application security.
- Developed a security mechanism to protect the application against data tampering.
- Performed production deployments, ensuring smooth and secure application operation.

Braynix AI Deep Learning Intern Bangalore, India

September 2021 - December 2021

- Worked on medical imaging projects focused on abnormality detection and image segmentation.
 - Conducted research and implemented findings from multiple sources and research papers using TensorFlow.
 - Designed and developed deep learning algorithms for medical imaging applications.
 - Implemented UNET and UNET with EfficientNetB4 encoder for the segmentation of X-ray images.
 - o Applied object detection algorithms like SSD, YOLOv5, and RetinaNet for detecting abnormalities, and used DCGANs to generate additional training data.

KEY PROJECTS

• KVMM: "Timm" for Keras 3 - Author: Github

- o Developed Keras Vision Models (KVMM), a Keras 3-native library with pretrained models for classification, segmentation, detection, and vision-language modeling (VLMs).
- Added flexible backbone support, custom layers, and multiple pretrained weight variants (in1k, in21k, fb_dist_in1k, ms_in22k, augreg_in21k), serving as a Keras equivalent to PyTorch's "timm".

• Chat with PDFs using LLMs: Github

- o Developed a document QA and summarization tool leveraging the RAG architecture with Llama-2 and sentence transformers for intelligent PDF interaction.
- o Integrated frameworks such as PyTorch, Hugging Face, LlamaIndex, and LangChain to support natural language querying over PDF content.

OPEN SOURCE CONTRIBUTIONS

- Contributed new layers and operations to the Keras and Keras 3 libraries, including image processing layers (RandomGrayscale, RandomHue, Equalization), PSNR API, and ops like unravel_index, diagflat, and inner.
- Authored code examples for keras.io showcasing TensorFlow Decision Forest and YOLOv8 training with KerasCV; also added ConvMixer models to KerasCV.
- Contributed to Hugging Face Transformers by adding type hints to models and implementing tokenization tests.

Achievements and Certifications

- Kaggle Notebook and Discussion Expert; completed 30 Days of Google Cloud; participated in Hacktoberfest (2020-2022).
- IBM Data Science Specialization Coursera.
- o DeepLearning.AI TensorFlow Developer Specialization Coursera.