Nishanth Artham

Email: arthamnishanth123@gmail.com
Portfolio: Nishanthartham.com
Mobile: +91-9059105727
Github: github.com/Nishanthartham

Education

- **Chaitanya Bharathi Institute of Technology** — Telangana, India
  Bachelor of Engineering - Information Technology (IT); GPA: 9.30/10 — *Nov 2020 - May 2024*
  Courses: *Deep Learning, Data Structures, Machine Learning, Operating systems, Databases, Data Analysis & Visualisation.*

Experience

- **Carnegie Mellon University** — Remote
  Research Intern ***(Computational Biology Lab)*** — *Sep 2023 - present*
  - : Achieved a remarkable **226**-fold reduction in the training time for fine-tuning vision transformers on Cryo-ET images, significantly enhancing efficiency.
  - : Elevated the accuracy of CryoET classification by **5%** on synthetic data with **0.05 SNR** through the implementation of contrastive learning on stylized natural images.
- **JPMorgan Chase & Co.** — Certificate
  Software Engineer Intern — *June 2023 - July 2023*
  - : Developed **FIAT** (Functional ID Retrieval and Access Token Generation), a robust full-stack application using **ReactJS and Spring Boot**, to ensure a **0%** locking rate of FID during UAT testing.
  - : Automated FID identification by implementing an advanced search filter, enabling efficient querying based on Sealid, business requirements, or FID functionality.
- **IIIT Hyderabad** — Certificate
  Research Assistant ***(Computer Vision Lab)*** — *May 2022 - May 2023*
  - : Worked on two different techniques **Layout Parser API** to parse each word in an uploaded image for 14 different languages and **OCR API** to display recognized words.
  - : The Handwritten OCR achieved a remarkable accuracy rate of **98.98%** for the Tamil language, printed OCR achieved **99.35%** accuracy for the Assamese language, and scene text OCR achieved **96.59%** accuracy in the Tamil language.
  - : Integrated deep network-based text line detector on Palm leaf Manuscripts into the workflow system.

Projects

- **Predicting the Borrower's Genuineness in Loan Repayment — Apache Spark, MLlib**: Paper Link
  - : Performed Predictive Analytics using **Apache Spark MLLib** on Loan Lending dataset containing **2.1 million** records of data to predict the repayment of loans taken by borrowers.
  - : Achieved a state-of-the-art accuracy of **95.9%** on lending club dataset.
- **Early Detection of Interstitial lung disease (ILD) — Pytorch, Vision transformer**:
  - : Developed a two-step workflow system for ILD detection. Implemented a segmentation mask to generate Regions of Interest (ROI), followed by fine-tuning a **Data Efficient Image Transformer** for ILD detection.
  - : Achieved an accuracy of **91%** using a multiclass classifier to identify the presence and type of ILD in HRCT images.
- **OCR API specs - Character Recognition tool (NLTM, Computer Vision) — PyTorch, Flask**:
  - : Developed and implemented a Layout Parser using the **Doctr** framework, enhancing the capability to detect individual words within an image.
  - : Implemented **Flask** as a robust backend to facilitate the reconstruction of uploaded images using the generated JSON file from layout parser and the recognized words from OCR.

Achievements

- Selected as a Mentee at the **Second Annual AmazonML Summer School** program (2022), from **20,000+** participants.
- Contributed as a Team Member in the **Google Developer Student Clubs**, specializing in ML domain.
- Received a **Medal** for outstanding academic performance (B.E 1/4) with a GPA of **9.9**.
- Served as the Joint Secretary of **COSC** (CBIT Open-Source Community) at CBIT.
- Awarded the **Gold Medal** in the Indian National Science Olympiad (2015-2016).

Skills Summary

- **Languages**: C, Python, Java, C++, JavaScript, SQL, MongoDB Query Language (MQL).
- **Miscellaneous**: GIT, Linux, Swagger UI, Hugging Transformers, Jenkins, Cloud Foundry.
- **Frameworks/Libraries**: Pytorch, ReactJS, ExpressJS, Sklearn, Tensorflow, Apache Spark, Spring Boot.
- **Soft Skills**: Technical Blog Writing, Event Management, Tutoring.