PIYUSH SINGH

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🌐 piyush01123.github.io 🎓 Google Scholar 📑 Stack Overflow

EDUCATION

M.S. in Computer Science and Engineering

IIIT Hyderabad

📅 Dec 2020 – Present

CGPA 9.0/10.0

Dual Degree in Civil Engineering

IIT Kharagpur

📅 Aug 2012 – May 2017

CGPA: 7.4/10.0

COURSES

Formal courses:
- Statistical Methods in AI
- Computer Vision
- Advanced Optimization
- Information Retrieval and Extraction
- Advanced NLP
- Data Systems

Online courses:
- Data Structures and Algorithms
- From Nand To Tetris
- Mining of Massive Datasets
- Machine Learning with Graphs

SKILLS

Languages:
Python, Bash, C++, Java, JavaScript, SQL

Tools/Technologies:
Git, Docker, Kubernetes, Airflow, , LaTeX

Libraries/Frameworks:
PyTorch, TensorFlow, Scikit-learn, OpenCV, Numpy, SciPy, Pandas, Matplotlib

CONTRIBUTIONS

- Contributed to popular open source repository Torchvision ⭘ [contribs]
- Contributed to open source repositories specific to my medical imaging research domain ⭘ [contribs]
- Helped in the organization of events such as summer school as part of CVIT research group.

EXPERIENCE

Research Student & Teaching Assistant

IIIT Hyderabad

📅 Nov 2019 – Ongoing 📍 Hyderabad, IN

- Applying ML in medical imaging domain in the area of representation learning, interpretability and active learning
- Worked as TA to prepare content for courses (i) Statistical Methods in AI and (ii) Optimization Methods

Machine Learning Engineer

Quantiphi Inc.

📅 Apr 2018 – Oct 2019 📍 Mumbai, IN

- Anomaly detection for a petroleum facility in near real-time
- Implemented dense and LSTM autoencoders and deployed in prod
- Automated system using Docker, Kubernetes and Airflow

Business Analyst

OYO Rooms

📅 May 2017 – Feb 2018 📍 Gurgaon, IN

- Implemented business logic to allow booking on app without pre-payment
- Automated dashboard sending to concerned people for each hotel

PUBLICATIONS

- "Exploring histological similarities across cancers from a deep learning perspective", Frontiers in Oncology, 12/2022
  Piyush Singh, Ashish Menon, C. V. Jawahar, P. K. Vinod
  📄 [paper] 📄 [slides] ⭘ [repo] 📄 [poster] ,

- "Interactive learning for whole slide image annotation", ACPR, 2021
  Ashish Menon, **Piyush Singh**, C. V. Jawahar, P. K. Vinod
  📄 [paper] 📄 [slides] ⭘ [repo]

PROJECTS

Wikipedia Search Engine ⭘ [repo]

Built search engine on wiki 75GB dump by chunking, creating inverted index and merging index files

Personal Mini Cloud 🌐 [site] ⭘ [repo]

Quickly share files from command line without any installation

Flask Image Gallery ⭘ [repo]

An application that lets you quickly view images from your server's CLI

Draw a Digit ⭘ [repo]

An app that lets you draw digit and then guesses it, entirely in your browser

Captioning App ⭘ [repo]

Android app for image captioning using RNNs with visual attention.