ADITYA KANE

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EDUCATION

Examination	University	Institute	Year	CGA/%
Bachelor of Computer Engineering	Savitribai Phule Pune University	Pune Institute of Computer Technology	2023	9.77
Intermediate/ +2	HSC	Sri Chaitanya Institutes	2019	84.61%
Matriculation	SSC	BVB's Paranjape Vidya Mandir	2017	93.6%

Currently pursuing **Bachelor of Computer Engineering** August 2019 - Present

INTERNSHIPS

Student Developer Intern — Google Summer of Code May 2021 - August 2021
TensorFlow | Computer Vision .

- Implemented and trained four variants of RegnetY from the paper **"Designing network design spaces"** by Radosavovic et al. on **ImageNet-1k** using **TensorFlow 2**.
- Created efficient data input pipelines and trained four variants of RegNetY on **Google Cloud TPUs**.
- Created multiple scripts for efficient data preprocessing, implemented custom training loop and inference functions. Used **Python** and TensorFlow's Python API.
- The resulting models had **exceptional inference speeds** and are now publicly available via TFHub.

Research Intern — PICT, Pune October 2020 - Present
Prof. Geetanjali Kale | Object detection .

- Working on the research project "Question Wise segmentation of Handwritten examination paper in AI-Assisted Grading System".
- Responsible for designing and writing codebase as well as maintaining the dataset of the project.
- Used **RetinaNet** to **segment questions** in an handwritten answer sheet. Created multiple scripts using **PyTorch** for seamless training, testing and inference.
- Made scripts in-house to quantitatively compare our results with other methods.
- Achieved significant improvement over present text detectors on this task. Currently working on **drafting and finalizing** the paper for submission to a reputed scientific journal.

PROJECTS

Added RegNets to tf.keras.applications January 2022
Computer Vision

- Implemented and trained **24** variants of RegNets on the **Imagenet-1k** dataset.
- Created efficient data input pipelines and trained models on **Google Cloud TPUs**.
- These models are now added to `tf.keras.applications` and are available here: tensorflow.org/tf/keras/applications/regnet

Open source Present
GitHub

- Frequently contributing to TensorFlow-Keras in the form of new features or bug fixes.
- **Self-supervised Learning methods:** Implemented two self-supervised methods: **Bag of Words** and **Masked Auto-regressive Model** using TensorFlow-Keras.

VOLUNTEER EXPERIENCE

TensorFlow User Group (TFUG) Pune

- Co-organizer of TensorFlow User Group, Pune.
- Received the **"Most Impactful Community Leader"** award for organizing most TFUG events in 2021.

COURSES UNDERTAKEN

Online Courses
Deep Learning (Specialization), DeepLearning.AI TensorFlow Developer (Specialization),
Web Applications for Everybody (Specialization)

Academic Courses

- Data Structures and Algorithms, Object Oriented Programming, Software Engineering, Computer Graphics, Database Management Systems*, Computer Networks and Security*, Distributed Systems*, Systems Programming and Operating System*
- Engineering Mathematics I, II and III, Discrete Mathematics, Computational Statistics*

TECHNICAL SKILLS

Languages Python (proficient), C++ (working knowledge), PHP, SQL, HTML
Packages TensorFlow, Keras, PyTorch, JAX, NumPy
Others Git and GitHub, Google Cloud