Ekta Gavas

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Education

International Institute of Information Technology, Hyderabad **July 2019 – May 2022**
MS by Research, Computer Science (CGPA: 8.83/10.00) *Hyderabad, Telangana*

The Maharaja Sayajirao University of Baroda **August 2014 – July 2018**
BE, Computer Science and Engineering (GPA: 3.99/4.00) *Vadodara, Gujarat*

Relevant Coursework

Computer Vision, Statistical Methods in AI, Deep Learning-Theory and Practices, Digital Image Processing, Software Engineering, Data Structures & Algorithms, Object Oriented Programming, Network Security, Database Management

Technical Skills

Languages & Frameworks: Python, R, JavaScript, C/C++, SQL, Java, ReactJS, Node, Flask, FastAPI, Angular
Scientific computing & analysis: NumPy, SciPy, Pandas, Scikit-learn
Data Visualization: Matplotlib, Seaborn, TensorBoard, Excel
Deep Learning Frameworks : PyTorch, TensorFlow, Keras, MXNet
Miscellaneous Technologies : Git, Docker, Slurm, TCP/IP

Experience

Graduate Research Assistant *CVIT, IIIT Hyderabad* **December 2019 – Present**

- **Continual Learning:** Designing replay-based strategy to avoid catastrophic interference exploiting feature inversion and benchmarking against SOTA techniques
- **Biometrics with Deep Learning:** Succesfully implemented fingerprint enhancement and minutia extraction using single deep neural network with synthetic fingerprints from Anguli and Sfinge generators
- **Large-scale similarity search:** Benchmarked various indices available in Faiss library to minimize time-accuracy trade-off at search time along with monitoring resource utilization

Teaching Assistant *IHub-Data, IIIT Hyderabad* **June 2021 – Present**

- Worked closely with the professors in preparing course material and conducted labs doubt-solving sessions, providing feedback and guidance to 290+ students for the program Foundations of Modern Machine Learning-2021

Associate Software Engineer *Jeavio (India) Pvt. Ltd.* **May 2018 – January 2019**

- Designed, developed and tested various front end modules for resorts and snow sports bookings portal in Angular 6 for a portfolio client. Also, developed REST APIs in NodeJS for the same.
- Developed, tested and integrated backend APIS in Python for the company's largest portfolio client.

Student Intern *The Maharaja Sayajirao University of Baroda - IIT Bombay* **May 2017 – May 2018**

- Developed web-based animated and interactive demonstrations and self-evaluations to illustrate the basic and advanced concepts in Data-mining for the Virtual Labs project

Projects

- **Center Loss Regularization for Continual Learning:** Designed an efficient continual learning method using center loss which is competitive with recent regularization strategies utilizing minimal additional memory.
- **Deep CNNs for Peripheral Blood Cell Classification:** Applied transfer learning and ensemble methods on CNN models for Blood Cell Classification. Achieved state-of-the-art accuracy of 99.51%
- **3D Object Classification:** Studied and implemented a paper for 3D Object classification using Neural Networks, making it spatially invariant with complex representations and 3D spatial transformer networks.
- **Medical AI:** Trained neural networks to predict severity of 6 diseases from clinical parameters with more than 85% accuracy. Developed micro-services based web application in ReactJS and Flask and deployed it on Google Cloud.
- **Avalanche (Open-Source Contribution):** Contributed a strategy and plugin for regularization-based continual learning method Less-Forgetful Learning (LFL) to the end-to-end continual learning library Avalanche by ContinualAI

Extra-Curricular and Leadership

- Coordinated training and placement activities at Placement cell for computer science department at MSU Baroda
- Invited as guest speaker for two-day Python Programming workshop with 40+ participants at MSU Baroda
- Volunteered and coordinated the computer programming events by Computer Society of India (Vadodara Chapter) engaging students from various schools and colleges