Mandar Deshpande

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EDUCATION

- **University of California, Los Angeles** — Los Angeles, CA
  Masters of Science in Electrical and Computer Engineering; CGPA:3.7/4 — September 2019 - June 2021
  Coursework: Deep learning, Statistical Machine Learning, Large Scale Data Mining

- **Visvesvaraya National Institute of Technology** — Nagpur, India
  Bachelor of Technology in Electrical and Electronics; CGPA:8.73/10 — August 2013 - May 2017

PROGRAMMING SKILLS

- **Languages**: : Python, Java, SQL, MATLAB, C, Javascript, HTML, CSS
- **Libraries**: : TensorFlow, PyTorch, OpenCV, numpy, pandas, scikit-learn

EXPERIENCE

- **Machine Learning Engineer** — Pune, India
  Citibank — July 2017 - June 2019
  - Designed OCR pipeline using deep learning (LSTM, CNN) on text images in **Python** and **JavaScript**.
  - Tabular data extraction from scanned financial statements using object localization (Fast-RCNN).
  - Reduced man-hours by 40% by utilizing NLP for parsing financial documents and information extraction.

- **Mentor - Google Summer of Code** — Pune, India
  TensorFlow — March 2019 - August 2019
  - Mentored the development of Random Network Distillation(RND), a bonus-based reinforcement learning algorithm
  - Verified RND in MountainCar-v2, a hard-exploration environment. Used **Python** and **TensorFlow**.

  Gensim — May 2018 - August 2018
  - Guided the neural networks for similarity learning research in Gensim, a topic modelling library for **Python**.
  - Benchmarked map score of 0.6463 using MatchPyramid on WikiQA test set.

  Scilab — May 2018 - August 2018
  - Mentored the development of Scilab native ML toolbox and Cloud integrated ML toolbox in **Scilab** and **Python**.
  - Integrated the toolbox with Google Cloud Platform and Amazon Web Services for remote access over ssh.

- **Intern - Google Summer of Code** — Nagpur, India
  Scilab — May 2017 - August 2017
  - Integrated Jupyter kernels in Scilab to allow remote **Python** script execution for ML model training and inference.
  - Collaborated with core Scilab developers and Business Development team, to tailor toolbox for target user groups.

- **Software Engineering Intern** — Pune, India
  Citibank — May 2016 - July 2016
  - Developed the frontend and backend of a Jasper report configuration web app using **Java**, **SQL** and **jQuery**.
  - Reduced developer workload by 12 hours weekly by automating the data population pipeline for regulatory reports.

- **Android App Developer** — Nagpur, India
  Rentarctica — May 2015 – Nov 2015
  - Developed the UI and functionality for mobile app in Android Studio using **Java**.
  - Apps functionality helped the startup get funded through Google Startup Weekend.

RELEVANT PROJECTS

- **Pixelwise Image Completion**: Developed a flavor of Residual Networks in **TensorFlow** for image in-painting on medical imaging in collaboration with IVPL Lab at Northwestern University.
- **Object Detection and Localization using SSD**: **PyTorch** implementation of Single Shot Detectors for YOLO and Multi-Box SSD.
- **Research Thesis - Meta-heuristic Algorithms for Fault Location Estimation**: Researched nature based algorithms using **Matlab** and **Simulink** to estimate fault location on transmission lines with 93% accuracy.