Dheeraj Rajaram Reddy

squadrick.github.io

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Education

- **Manipal Institute of Technology** — Manipal
  B.Tech in CSE; CGPA: 8.33 — *2016 – 2020*
- **Bethany High School** — Bangalore
  10th (ICSE): 89.66%; 12th (ISC): 93.75%

Experience

- **Spectre Inc.** — San Francisco
  ML Engineer (Remote) — *Apr 2018 - Present*
  - **Swish**: Working on the selfie ranking algorithm using neural networks, and training them on large real-world datasets collected from users. The frameworks used are TensorFlow, PyTorch and Chainer. Deployed on Google Firebase using Tensorflow Lite.
- **Project MANAS** — Manipal
  Team Leader — *Feb 2018 - Present*
  - **IGVC 2018 - Adam**: Headed the team that built an autonomous bot for the 26th Annual IGVC held at Oakland University. Placed 9th in the world and 2nd in India out of 36 teams. Designed the software architecture.
  - **Mahindra Rize Prize - Eve**: Heading the team building an autonomous car built specifically for Indian roads. Designed the software architecture and currently implementing it.
- **Project MANAS** — Manipal
  Planning Subdivision Head — *May 2017 - Feb 2018*
  - **TrafficNet**: Built a deep neural network for traffic sign detection with only 175k trainable parameters, for use in critical speed intensive situations.
  - **ReiLs**: Built a reinforcement learning framework with Tensorflow back-end for faster modular prototyping, deployment and bench-marking of Deep-RL pipelines.
  - **Mapping**: Implemented probabilistic map building using high-density pointcloud data using OctTrees, with multiprocessor and GPU support.
- **Manipal Institute of Technology** — Manipal
  Research and Leadership
  - **Research Assistant - Machine Learning**: Working on ML algorithms for identification and detection of Macular Holes in fundus images. Also did research on no reference fundus image quality assessment.
  - **General Secretary - ACM Manipal Student Chapter**: Conducted numerous workshop on machine learning, deep learning and image processing. Invited by other student clubs to give talks as a campus expert on Deep Learning.
  - **Mentor - DevFest 2017**: Mentor at workshop organized by Google Developers Group, on Introducton to Machine Learning. Taught and implemented the Least Squares Regression algorithm.

Projects

- **WiPay**: Android application to serve as a marketplace for mobile data. Built in 24h hours for AngelHack. 3rd Place.
- **AzzuNet**: Implemented and trained a bidirectional LSTM for word sense induction and disambiguation task organized by Philips India. Qualified for the final round.
- **Mozart**: A web application that analyzes music played by the user and plays back a suitable duet.
- **Chess AI**: A chess engine that uses Alpha-Beta pruning. Built in 11th grade.

Programming Skills

- **Languages**: C/C++, Java, Python, Haskell, Rust
- **Technologies**: Git, Linux, ROS, OpenCV, Tensorflow, PyTorch, PCL, ONNX, CUDA

Achievements

- **ACM ICPC Asia Regional Qualifier**: Dec 2017 (Honourable Mention)
- **PES University *Commitment to Science* Scholarship**: Jan 2016 (1 out of 250 student)