Piyush Malhotra

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Github: @piyush2896

Education

- **Arizona State University** — Ira A. Fulton Schools of Engineering
  MS in Software Engineering — *August 2019 – Present*
- **Amity University, India** — Amity School of Engineering and Technology
  B.Tech in Computer Science and Engineering — *July. 2014 – May. 2018*

Programming Skills

- **Languages**: Python, C/C++, Java, SQL **Basics**: Javascript, HTML/CSS
- **Libraries**: TensorFlow, Keras, PyTorch, Scikit-Learn, MatplotLib, Pandas, NumPy, OpenCV, NLTK
- **Technologies**: AWS, Google Cloud, Android Studio, Git/GitHub

Experience

- **Untrodden Labs** — New Delhi, India
  Machine Learning Intern — *June 2018 - October 2018*
  - **ThingsGoSocial**: Train, Tested and Deployed Non-Intrusive Load Monitoring (NILM) Deep Learning models. Current NILM system scores a - **F1 score for different appliances varied between 0.1 and 0.9 over test set**.
  - **Research RL for HVAC**: Apply Deep Reinforcement Learning to Heating, ventilation, and air conditioning (HVAC) systems for consumption reduction.
- **StarLight Academy** — New Delhi, India
  Machine Learning Instructor — *February 2019 - May 2019*
  - **Machine Learning Instructor**: The ML bootcamp covered topics ranging from Version Control, Data Visualization, Jupyter and basic to advance Machine Learning techniques.
- **StarLight Academy** — New Delhi, India
  Computer Programming Instructor — *May 2017 - March 2018*
  - **Courses**: Taught courses - C/C++, Java and Python along with Advanced Courses like - Machine Learnning

Projects

- **Predictive Programmer**: A blog dedicated to Machine Learning and Data Science. Monthly Views: over 2,000, Blogs Written: 16+.
- **PSO For Neural Networks**: One of the many experiments out of my B.Tech major project. Tried to replace Gradient Descent with **Particle Swarm Optimization**. Worked on par with Gradient Descent in many cases.
- **Image Captioning**: Image captioning using TensorFlow and TensorFlow-hub with **test loss at about 0.71**
- **Deep Learning Papers Impl.**: Implementations of Papers like CoordConv, NALU, Capsule Networks, CNN Text Classification, GANs **and many more on my github account: @piyush2896.**

Research & Publications

- **Research Paper Presentation**: Presented a paper **Parameter Estimation of Software Reliability Growth Models Using Krill Herd Algorithm** in Confluence 2017 - annual IEEE international conference held in Amity University, Uttar Pradesh, India.
- **Research Poster Presentation**: As part of final year thesis conducted a project based approach towards Meta-heuristics in Deep Learning and devised a **Neural Architecture Search using Meta-heuristics**. **Selected in top 10 posters at Department Level.**

Certifications

- **Deep Learning Specialization.** Certificate earned on April 04, 2018
- **Machine Learning Basic Nanodegree Udacity.** Certificate Earned on November 13, 2017.
- **Machine Learning by Stanford University on Coursera**. Certificate earned on January 18, 2017.