Rahul Yedida

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Education

North Carolina State University — Raleigh, NC
Ph.D. Computer Science - GPA: 3.9/4.0 — *Aug. 2019 – Present*

PES University — Bangalore, India
B.E. Computer Science - GPA: 3.2/4.0 — *Aug. 2015 – May 2019*

Employment

North Carolina State University — Raleigh, NC
Graduate Research Assistant — *Jan. 2020 – Present*

- **Research:** Co-authored 3 first-author papers and 2 other papers.

Graduate Teaching Assistant — *Aug. 2019 – Jan. 2020*

- **Office hours:** Held office hours for 54 undergraduate students.
- **Lecture:** Delivered lectures on object-oriented programming and RAII in C++.

Indian Institute of Astrophysics — Bangalore, India
Research Intern — *Jul. 2018 - Mar. 2019*

- **Image denoising:** Worked on image restoration of globular clusters using convolutional neural networks.
- **Research:** Proposed novel adaptive learning rate scheme for deep neural networks.

Skills

Languages: Python, JavaScript, C++, Swift, VB.NET

Frameworks: Flask, Keras, PyTorch, Node.js, React

Databases: SQL, MongoDB

Projects

Google Takeout Data Mining — Feb. 2021 – May 2021
Python, Keras — *GitHub*

Data science project to use Google Takeout data to suggest products to advertise to a user from Amazon best sellers using BERT and achieved 0.4 F-1 score.

RAISE — Aug. 2020 – Present
Python, Keras — *GitHub :: PyPI*

Sole developer for a PEP8/PEP257-compliant, ML Python package used by our research lab. Downloaded 3,300 times.

Personalized Chatbot — May 2019
Python, Keras — *GitHub*

Fine-tuned a GPT-2 345M model on 730k messages from Telegram logs to create a personalized chatbot.

Intelligent Tutoring System — Sep. 2018 – May 2019
Python — *GitHub*

Implemented an Intelligent Tutoring System backend using Bayesian Knowledge Tracing and a novel question selection algorithm.

Human Activity Data Project — Oct. 2018 – Nov. 2018
Python, Keras — *GitHub*

Collected personal activity data for 9 months, grouped tasks into 21 categories. Analyzed most productive hours of the day and built a 2-layer predictive LSTM model, achieving 42% top-5 accuracy.

Publications

Agrawal, A., Yang, X., Agrawal, R., **Yedida, R.**, Shen, X., & Menzies, T. (2021). Simpler Hyperparameter Optimization for Software Analytics: Why, How, When?. *IEEE Transactions on Software Engineering, doi: 10.1109/TSE.2021.3073242*

Yang, X., Chen, J., **Yedida, R.**, Yu, Z., & Menzies, T. (2021). Learning to recognize actionable static code warnings (is intrinsically easy). *Empirical Software Engineering, 26(3), 1-24.*

Yedida, R., & Menzies, T. (2021). On the Value of Oversampling for Deep Learning in Software Defect Prediction. *IEEE Transactions on Software Engineering, doi: 10.1109/TSE.2021.3079841*

Yedida, R., Yang, X., & Menzies, T. (2021). When SIMPLE is better than complex: A case study on deep learning for predicting Bugzilla issue close time. *arXiv preprint arXiv:2101.06319.*

Saha, S., Nagaraj, N., Mathur, A., **Yedida, R.**, & Sneha, H. R. (2020). Evolution of novel activation functions in neural network training for astronomy data: habitability classification of exoplanets. *The European Physical Journal Special Topics, 229(16), 2629-2738.*

Yedida, R., Abrar, S. M., Melo-Filho, C., Muratov, E., Chirkova, R., & Tropsha, A. (2020). Text Mining to Identify and Extract Novel Disease Treatments From Unstructured Datasets. *arXiv preprint arXiv:2011.07959.*

Yedida, R., Saha, S., & Prashanth, T. (2020). LipschitzLR: Using theoretically computed adaptive learning rates for fast convergence. *Applied Intelligence, 1-19.*

Sridhar, S., Saha, S., Shaikh, A., **Yedida, R.**, & Saha, S. (2020, July). Parsimonious Computing: A Minority Training Regime for Effective Prediction in Large Microarray Expression Data Sets. In *2020 International Joint Conference on Neural Networks (IJCNN) (pp. 1-8). IEEE.*

Khaidem, L., **Yedida, R.**, & Theophilus, A. J. (2019, November). Optimizing Inter-nationality of Journals: A Classical Gradient Approach Revisited via Swarm Intelligence. In *International Conference on Modeling, Machine Learning and Astronomy (pp. 3-14). Springer, Singapore.*

Talks

Complexity Classes and NP-Completeness, presented at PES University, Bangalore, 2017.

How to design a Flappy Bird game, presented at PES University, Bangalore, 2018.

Machine Learning, presented at PES University, Bangalore, 2018.

An Introduction to Data Analysis, presented at PES University, Bangalore, 2018.

Service to Profession

Reviewer, IEEE Symposium Series on Computational Intelligence (SSCI) 2020

Technical Program Committee Member, International Conference on Modeling, Machine Learning, and Astronomy, 2019