Rahul Yedida

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EDUCATION

North Carolina State University

Raleigh, NC Ph.D. Computer Science - Advisor: Dr. Tim Menzies Aug 2019 - May 2024

**PES** University

Bangalore, India

B.E. Computer Science

Aug 2015 - May 2019

Recent Employment

New York, NY Amazon

Software Dev Engineer Intern

May 2023 - Aug 2023

- o Implemented profile locks for Prime Video on Echo Show devices.
- o **Technology:** React Native, TypeScript

Software Dev Engineer Intern

May 2022 - Jul 2022

- Developed a full-stack system to publish announcements in scorecards used by delivery service partners (DSPs).
- o Technology: React/Redux, TypeScript, Redux Saga, DyanmoDB, Java Spring

### North Carolina State University

Raleigh, NC

Graduate Teaching Assistant

Aug 2023 - May 2024

- TA (with 2 others) for 149 students for a graduate Automated Software Engineering course.
- TA (with 4 others) for 289 students for a graduate Software Engineering course.

Graduate Teaching Assistant

Aug 2022 - May 2023

- TA (with 3 others) for 97 students for a graduate Automated Software Engineering course.
- TA (with 4 others) for 233 students for a graduate Software Engineering course.

Graduate Research Assistant

Jan 2020 - May 2022

- Better, faster deep learning for SE: Improved defect prediction by up to 123% (F-1 score), code smell detection by up to 30% (AUC)
- Semi-supervised learning: Achieved state-of-the-art results on static code warnings analysis using 10% of the labels.

## Recent Publications

See full list on Google Scholar.

- 1. Baldassarre, M. T., Ernst, N., Hermann, B., Menzies, T., & Yedida, R. (2023). (Re)use of Research Results (is Rampant). Communications of the ACM, 66(2), 75-81.
- 2. Yedida, R., Kang, H. J., Tu, K., Lo, D., & Menzies, T. (2023). How to Find Actionable Static Analysis Warnings: A Case Study with FindBugs. IEEE Transactions on Software Engineering, (01), 1-17.
- 3. Yedida, R., Krishna, R., Kalia, A., Menzies, T., Xiao, J., & Vukovic, M. (2023). An Expert System for Redesigning Software for Cloud Applications. Expert Systems with Applications.
- 4. Yedida, R., Menzies, T. (2022). How to Improve Deep Learning for Software Analytics (a case study with code smell detection). In 2022 IEEE/ACM 19th International Conference on Mining Software Repositories (MSR). IEEE, 2022.
- 5. 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
- 6. 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

- 7. 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.
- 8. **Yedida, R.**, Krishna, R., Kalia, A., Menzies, T., Xiao, J., & Vukovic, M. (2021). Lessons learned from hyper-parameter tuning for microservice candidate identification. *Proceedings of the thirty-sixth IEEE/ACM International Conference on Automated Software Engineering (ASE)*
- 9. **Yedida, R.**, & Saha, S. (2021). Beginning with Machine Learning: A Comprehensive Primer. *The European Physical Journal Special Topics: 1-82.*
- 10. 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.
- 11. **Yedida, R.**, Saha, S., & Prashanth, T. (2020). LipschitzLR: Using theoretically computed adaptive learning rates for fast convergence. *Applied Intelligence*, 1-19.
- 12. 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.
- 13. 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.*

# Funding

\$5,000, Google Cloud Academic Research Grant, Feb 2022

## SERVICE TO PROFESSION

Reviewer, ICML 2024; Neural Processing Letters 2023, 2024; Neural Computing & Applications (NCAA), 2023; Artificial Intelligence Review 2023; ICLR 2024; NeurIPS 2023; Journal of Big Data, 2023; Automated Software Engineering (ASE), 2023; Empirical Software Engineering (EMSE), 2021; IEEE Symposium Series on Computational Intelligence (SSCI) 2020

**PC Member**, International Conference on AI Foundation Models and Software Engineering (FORGE) 2024; Automated Software Engineering (ASE) Artifact Evaluation Track, 2022; International Conference on Software Maintenance and Evolution (ICSME) Artifact Evaluation Track, 2021, 2022, 2023; International Conference on Modeling, Machine Learning, and Astronomy (MMLA), 2019

Student Volunteer, Automated Software Engineering (ASE) '21

#### Honors and Awards

Google Cloud Champion Innovator - Cloud AI/ML, Jul 2023

Google Cloud Research Innovators Mentor, Dec 2022

Google Cloud Champion Innovator, Oct 2022

Google Cloud Research Innovator, Feb 2022

#### SKILLS

**Languages**: Python, TypeScript, Java, C++

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

Databases: MySQL, MongoDB, DynamoDB