

## EDUCATION

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**North Carolina State University**  
*Ph.D. Computer Science - GPA: 3.9/4.0*

Raleigh, NC  
*Aug. 2019 – Present*

**PES University**  
*B.E. Computer Science - GPA: 7.9/10.0*

Bangalore, India  
*Aug. 2015 – May 2019*

## EMPLOYMENT

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**Amazon**  
*Software Dev Engineer Intern*

Bellevue, WA  
*May 2022 – Jul 2022*

- Worked on publishing announcements in scorecards used by delivery service partners (DSPs).
- **Technology:** React, Redux Saga, AWS (ECS, DynamoDB), Java

**North Carolina State University**  
*Graduate Research Assistant*

Raleigh, NC  
*Jan. 2020 – May 2022*

- Better, faster deep learning for software engineering; V&V for AI systems; reuse in SE

*Graduate Teaching Assistant*

*Aug. 2019 – Jan. 2020*

- Held office hours for 54 undergraduate students and delivered lectures on C++.

**Indian Institute of Astrophysics**  
*Research Intern*

Bangalore, India  
*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.

## PUBLICATIONS

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**Yedida, R.**, Kang, H. J., Tu, K., Lo, D., & Menzies, T. (2022). How to Find Actionable Static Analysis Warnings. *arXiv preprint arXiv:2205.10504*

**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..

**Yedida, R.**, Krishna, R., Kalia, A., Menzies, T., Xiao, J., & Vukovic, M. (2022). Partitioning Cloud-based Microservices (via Deep Learning). *arXiv preprint arXiv:2109.14569*.

Baldassarre, M. T., Ernst, N., Hermann, B., Menzies, T., & **Yedida, R.** (2021). (Re)use of Research Results (is Rampant). *arXiv preprint arXiv:2108.06821*

**Yedida, R.**, & Saha, S. (2021). Beginning with Machine Learning: A Comprehensive Primer. *The European Physical Journal Special Topics: 1-82*.

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.**, 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)*.

**Yedida, R.**, Yang, X., & Menzies, T. (2021). Old but Gold: Reconsidering the value of feedforward learners for software analytics. *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.**, Michael-Beasley, J., Korn, D., Abrar, S. M., Melo-Filho, C., Muratov, E., Graedon, J., Graedon, T., Chirkova, R., & Tropsha, A. (2020). Text Mining of the People's Pharmacy Radio Show Transcripts Can Identify Novel Drug Repurposing Hypotheses. *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*.

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## FUNDING

**\$5,000**, Google Cloud Academic Research Grant, 2022.

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## HONORS

**2022**, Google Cloud Research Innovator

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## RELEVANT PROJECTS

<b>Google/Meta Data Mining</b> <i>Python, Keras</i>	Feb. 2021 – May 2021 <a href="#">GitHub</a>
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Data science project to use Google Takeout and Meta user data to suggest products to advertise to a user from Amazon best sellers using DistilGPT-2 and achieved 0.6 F-1 score.

<b>RAISE</b> <i>Python, Keras</i>	Aug. 2020 – Present <a href="#">GitHub</a> :: <a href="#">PyPI</a>
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Sole developer for a PEP8/PEP257-compliant, ML Python package used by our research lab and others for replicable results. Downloaded 12k times.

<b>Personalized Chatbot</b> <i>Python, Keras</i>	May 2019 <a href="#">GitHub</a>
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Fine-tuned a GPT-2 345M model on 730k messages from Telegram logs to create a personalized chatbot.

<b>Intelligent Tutoring System</b> <i>Python</i>	Sep. 2018 – May 2019 <a href="#">GitHub</a>
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Implemented an Intelligent Tutoring System backend using Bayesian Knowledge Tracing and a novel question selection algorithm.

<b>Human Activity Data Project</b> <i>Python, Keras</i>	Oct. 2018 – Nov. 2018 <a href="#">GitHub</a>
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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.

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## SKILLS

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

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

**Databases:** SQL, MongoDB, DynamoDB