Rahul Yedida

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Website :: GitHub :: LinkedIn :: Google Scholar

EDUCATION

North Carolina State University

Raleigh, NC Aug 2019 - May 2024

Ph.D. Computer Science - Advisor: Dr. Tim Menzies

Bangalore, India

B.E. Computer Science

**PES** University

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).
- 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.
- o 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

#### Funding

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 Research Innovator, Feb 2022

Google Cloud Champion Innovator, Oct 2022

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

Google Cloud Research Innovators Mentor, Dec 2022

#### Relevant Projects

RAISE Aug 2020 - Present Python, Keras GitHub :: PyPI

Sole developer for a PEP8-compliant, ML Python package used by our research lab and others for replicable results. Downloaded 23k times.

#### Google/Meta Data Mining

Python, Keras

Feb 2021 - May 2021

GitHub

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.

#### Novel Drug Repurposing Hypotheses

Python, PyTorch

Oct 2019 - Feb 2020 GitHub

Identified novel drug repurposing hypotheses using text mining of radio transcripts, and verified results.

Personalized Chatbot
Python, Keras

May 2019 - May 2019
GitHub

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

# rme-tuned a Gr 1-2 545M model on 750k messages from Telegram logs to create a personalized chart

Intelligent Tutoring System
Python

Sep 2018 - May 2019

GitHub

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

### SKILLS

Languages: Python, TypeScript, Java, C++

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

Databases: MySQL, MongoDB, DynamoDB