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; 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

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 May 2019 - May 2019 GitHub

Python, Keras

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

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

SKILLS

Python

Languages: Python, TypeScript, Java, C++

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

Databases: MySQL, MongoDB, DynamoDB