

Rahul Yedida

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Education

North Carolina State University

PH.D. COMPUTER SCIENCE – ADVISOR: DR. TIM MENZIES

Raleigh, NC

Aug 2019 - May 2023

PES University

B.E. COMPUTER SCIENCE

Bangalore, India

Aug 2015 - May 2019

Experience

Amazon

SOFTWARE DEV ENGINEER INTERN

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

New York, NY

May 2023 - Aug 2023

Amazon

SOFTWARE DEV ENGINEER INTERN

- 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

New York, NY

May 2022 - Jul 2022

North Carolina State University

GRADUATE TEACHING ASSISTANT

- 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.

Raleigh, NC

Aug 2023 - May 2024

North Carolina State University

GRADUATE TEACHING ASSISTANT

- 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.

Raleigh, NC

Aug 2022 - May 2023

North Carolina State University

GRADUATE RESEARCH ASSISTANT

- **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.

Raleigh, NC

Jan 2020 - May 2022

North Carolina State University

GRADUATE TEACHING ASSISTANT

- TA (with 1 other) for 159 students for an undergraduate C and Software Tools course.

Raleigh, NC

Aug 2019 - Dec 2019

Funding

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

Service

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 & Awards

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

Dec 2022 **Google Cloud Research Innovators Mentor**

Oct 2022 **Google Cloud Champion Innovator**

Feb 2022 **Google Cloud Research Innovator**

Talks

Feb 2024 **Improving deep learning performance using theoretical ML**, IEEE AI Symposium

*BITS Pilani, KK Birla
Goa Campus, India*

Projects

Programmable Resumes

GitHub

PYTHON

Aug 2023 - Present

- Developed a specification and implementation for modular, customizable resumes with support for two popular LaTeX templates.

pysb

GitHub

C++, TMLANGUAGE

May 2021 - Present

- Developed a superset of Python that allows running Shell code natively, with a VS Code syntax highlighting extension.

RAISE

GitHub, PyPI

PYTHON, KERAS

Aug 2020 - Present

- Sole developer for a PEP8-compliant, ML Python package used by our research lab and others for replicable results. Downloaded 24k times.

Threaded Discussions Website

GitHub

MONGODB, NODE.JS, REACT

Feb 2021 - Jun 2021

- Companion website for video calls that allows for Reddit-style, threaded discussions.

Google/Meta Data Mining

GitHub

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.

NearConnect

GitHub, App Store

iOS, SWIFTUI

Nov 2020 - Mar 2021

- iOS app to connect with people nearby using multicast peer-to-peer connections.

Novel Drug Repurposing Hypotheses

GitHub

PYTHON, PYTORCH

Oct 2019 - Feb 2020

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

Personalized Chatbot

GitHub

PYTHON, KERAS

May 2019 - May 2019

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

Intelligent Tutoring System

GitHub

PYTHON

Sep 2018 - May 2019

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

JournalBear

GitHub, Softpedia

JAVASCRIPT, ELECTRON

Jan 2017 - Feb 2019

- Cross-platform journal application with AES-256 encryption. Rated 4/5 by Softpedia.

Human Activity Data Project

GitHub

PYTHON, KERAS

Oct 2018 - Nov 2018

- Collected personal activity data for 9 months, grouped tasks into 21 categories. Analyzed most productive hours of the day.

Results Scraper

GitHub

MONGODB, EXPRESS.JS, REACT, NODE.JS

Mar 2018 - Aug 2018

- Website for scraping university examination results and displaying charts and printable reports, with caching.

Video Sharing Website

GitHub

MYSQL, EXPRESS.JS, REACT, NODE.JS, SASS, ELASTICSEARCH

Oct 2017 - Dec 2017

- Simplified implementation of a video-sharing website with subscriptions and custom searching.

Web development projects

CodePen

MONGODB, EXPRESS.JS, REACT, NODE.JS, SASS, D3.JS

Jan 2017 - Nov 2017

- Projects include URL shortener, rogue-like dungeon crawler game, voting application, Simon game, land surface temperature heatmap, and mapping meteorite impacts across the globe.

Xtreme Calculations

Softpedia

VB.NET, PYTHON

Apr 2013 - Oct 2017

- Windows math software to solve scientific and mathematical problems, with over 30k downloads across multiple sites.

Skills

Languages	Python, TypeScript, Java, C++
Frameworks	Flask, Keras, PyTorch, Node.js, React
Databases	MySQL, MongoDB, DynamoDB