Rahul **Yedida**

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Education

North Carolina State University *Raleigh, NC*

PH.D. COMPUTER SCIENCE – ADVISOR: DR. TIM MENZIES *Aug 2019 - Exp. Dec 2023*

PES University *Bangalore, India*

B.E. COMPUTER SCIENCE *Aug 2015 - May 2019*

Experience

Amazon *New York, NY*

SOFTWARE DEV ENGINEER INTERN *May 2023 - Aug 2023*

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

Amazon *New York, NY*

SOFTWARE DEV ENGINEER INTERN *May 2022 - Jul 2022*

- Developed a full-stack system to publish announcements in socrecards 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 2022 - Apr 2023*

- TA (with 3 others) for 119 students for a graduate Automated Software Engineering course.
- TA (with 4 others) for 243 students for a graduate Software Engineering course.

North Carolina State University *Raleigh, NC*

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.

Funding

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

Service

Reviewer, 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, Automated Software Engineering (ASE) Artifact Evaluation Track, 2022; International Conference on Software Maintenance and Evolution (ICSME) Artifact Evaluation Track, 2021, 2022; International Conference on Modeling, Machine Learning, and Astronomy (MMLA), 2019

Student Volunteer, Automated Software Engineering (ASE) '21

Honors & Awards

2022   **Google Cloud Champion Innovator**

Projects

Programmable Resumes *GitHub*

PYTHON *Aug 2023 - Present*

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

pysh *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 19k times.

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.

Threaded Discussions Website *GitHub*

MongoDB, Node.js, React *Feb 2021 - Jun 2021*

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

NearConnect *GitHub, App Store*

iOS, SwiftUI *Nov 2020 - Mar 2021*

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

Personalized Chatbot *GitHub*

Python, Keras *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.

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.

JournalBear *GitHub, Softpedia*

JavaScript, Electron *Jan 2017 - Feb 2019*

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

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.

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.

Video Indexer *GitHub*

C++, Qt, Sphinx *Jun 2017 - Sep 2017*

- Cross-platform desktop application to detect the time(s) a given keyword was spoken in a video.

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.

Skills

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