

Rahul Yedida

PH.D. STUDENT

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Education

North Carolina State University

PH.D. IN COMPUTER SCIENCE

Raleigh, USA

Aug 2019 - Exp. Jun 2024

PES University, Electronic City Campus

B.E. IN COMPUTER SCIENCE AND ENGINEERING

Bangalore, India

Aug 2015 - Jul 2019

- GPA: 7.86/10
- Relevant coursework: Data Analytics; Data Mining; Machine Learning; Soft & Evolutionary Computing
- Independently conducted C++ classes after-hours in freshman year
- Presented several talks, including, "How to design a Flappy Bird game", "An Introduction to Data Analysis", and "Complexity Classes and NP-Completeness"

Employment

Indian Institute of Astrophysics

RESEARCH INTERN

Bangalore, India

Jul 2018 - Mar 2019

- Worked on image restoration of globular clusters using convolutional neural networks.
- Worked on novel adaptive learning rate schedulers for SGD.

Projects

SymNet

PYTHON 3, KERAS

Jun 2019 - Present

Created a high-level deep learning framework with a custom adaptive learning rate scheduler, novel activation functions, and built-in data pre-processing. The framework also picks reasonable default network architectures.

Machine Learning Blog

PYTHON 3

Jun 2018 - Present

Made a WordPress blog to teach machine learning, demonstrating all mathematical details with intuition and working code.

Personalized Chatbot

PYTHON 3

May 2019

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

Intelligent Tutoring System

PYTHON 3

Sep 2018 - May 2019

Implemented the back end of an Intelligent Tutoring System (ITS), using a Hidden Markov Model and a custom question selection algorithm.

JournalBear

HTML, CSS, JAVASCRIPT, ELECTRON

Jun. 2017 - Feb 2019

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

Activity Data Project

PYTHON 3, KERAS

Oct 2018 - Nov 2018

Collected personal data on activities performed throughout the day for 9 months along with start/end times, and grouped tasks into 30 categories. Analyzed most productive hours of the day and built 2-layer LSTM predictive model.

Issue Reporting System

PYTHON 3, FLASK, REACT

Sep 2018 - Nov 2018

Web application that allows users to submit issues, and filters duplicates when viewed by organizations using Latent Semantic Analysis.

Result Scraper

MONGODB, NODE.JS, EXPRESS, REACT

Mar 2018

Website for scraping university examination results and displaying charts and printable reports, with caching using a database.

Video Sharing Website

HTML/CSS, SASS, FLEXBOX, REACT.JS, REACT-ROUTER V4, MYSQL, EXPRESS.JS, NODE.JS, ELASTICSEARCH

Sep 2017 - Nov 2017

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

Xtreme Calculations

VB.NET, PYTHON 3

Apr 2013 - Oct 2017

Windows math software to solve scientific and mathematical problems.

Video Indexer

C++, QT, CMUSPHINX

Sep 2017

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

Web Development Projects

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

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	C++, Python 3, HTML (Razor), CSS (Sass), JavaScript, Node.js, LaTeX, R
Libraries	jQuery, React.js, D3.js, PyTorch, Keras, RJAGS, JavaFX
Frameworks	Express.js, ASP.NET Core 2, Entity Framework Core, Flask
Databases	MySQL, MongoDB
Tools	Visual Studio, Jupyter, Google Compute Engine

Honors & Awards

2017	All India Rank 27 , National Creativity Aptitude Test (Category 2)	Bangalore, India
2015	Winner , Microsoft Code Hunt, BMS College of Engineering	Bangalore, India

Research

2019	Evolution of Novel Activation Functions in Neural Network Training and implications in Habitability Classification , Snehanthu Saha, Nithin Nagaraj, Archana Mathur, Rahul Yedida	Under Review
2019	LipschitzLR: Using theoretically computed adaptive learning rates for fast convergence , Rahul Yedida, Snehanthu Saha	Under Review
2019	Optimizing Inter-nationality of Journals: A classical gradient approach revisited via Swarm Intelligence , Luckyson Khaidem, Rahul Yedida, Abhijit J. Theophilus	Under Review
2018	A suggested approach for identifying prolific authors , Adel M. Aladwani, Snehanthu Saha, Rahul Yedida	Under Review
2018	Employee Attrition Prediction , Rahul Yedida et al. Presented at the RISE 2017 conference.	Conference Paper

Independent Coursework

SEP 2016	Machine Learning (CS229) , Andrew Ng, Stanford Engineering Everywhere	Stanford University
JUL 2017	Building a JavaScript Development Environment , Cory House	Pluralsight
JAN 2018	Doing Data Science with Python , Abhishek Kumar	Pluralsight
MAR 2018	Building a Web App with ASP.NET Core, MVC, Entity Framework Core, Bootstrap and Angular , Shawn Wildermuth	Pluralsight
AUG 2018	Deep Learning Specialization , deeplearning.ai	Coursera
OCT 2018	Computational Neuroscience , University of Washington	Coursera
MAR 2019	Practical Deep Learning for Coders v3 , fast.ai	fast.ai
JUN 2019	Docker Deep Dive , Nigel Poulton	Pluralsight
JUL 2019	Advanced Java Concurrency Patterns , Jose Paumard	Pluralsight
JUL 2019	Bayesian Statistics: Techniques and Models , University of California, Santa Cruz	Coursera