

Tarun Kumar

BITS Pilani, Rajasthan (India)
+91 946 097 3751
reach.tarun.here@gmail.com
Github: [reachtarunhere](#)
Blog: [reachtarunhere.github.io](#)

EXPERIENCE

Mentored by Dr. Norvig, Director of Research at Google

As part of **Google Summer of Code 2016** – MAY 2016 - AUGUST 2016

- ✦ [Python](#) implementations for book “Artificial Intelligence : A Modern Approach”
- ✦ Implemented algorithms for Reinforcement Learning. Improved code for Probability/Bayesian Networks and Natural Language Processing modules
- ✦ Made interactive visualizations for CSP and MDP algorithms. Also, wrote tutorials showing usage of code in applications. E.g. Language Identification

Research Intern, Council for Scientific and Industrial Research-CEERI

DECEMBER 2015 - JANUARY 2016

Mentor: Dr. Jagdish Lal Raheja, **Principal Scientist**, Central Electronics Engineering Research Institute

- ✦ Built a Fall Detection System using Skeleton Data obtained from Kinect Sensor
- ✦ Used a Decision Tree Classifier to identify the posture and based on series of postures detects the event when a person falls.

Open Source Contributor to Honeynet, Google Summer of Code 2015

MAY 2015 - AUGUST 2015

Mentor: Mr. Pietro Delsante, Incident Response Team Coordinator, CERTEGO

- ✦ Developed Rumal A tool that acts as a metadata enrichment tool and Web GUI supporting visualizations for Thug's output Built the REST API layer for Rumal Server-Client communication
- ✦ Rumal's Visualizations and GUI makes it easier to make sense of the huge volume of data created by Thug. The launch blog post of Rumal: [A WebGUI for Thug](#)
- ✦ Using abc module implemented a Plugin Engine for Rumal that makes it easy to add custom community-based plugins to the enrichment data

SELECTED PROJECTS

Mana Maali - Online Mental Health Intervention Platform

- ✦ Lead an international development team with colleagues from [Stanford](#), [Penn State](#), [NIMHANS](#), [John Hopkins](#) to build a mental health intervention delivery platform
- ✦ System supports development of online mental support & interventions for on-campus students. It also gathers and anonymizes user data for behavioral research
- ✦ Authoring tool enables non-technical program designers to create customized interventions and intelligently selects assessment surveys questions

Smart E-Mail Classifier

- ✦ Runner's up at APOGEE Project Presentation, the campus technical event from over 12 projects in the Software Design (Adaptive) category.
- ✦ Automatic sorting into clusters learned on email to email similarity metrics using TF-IDF with Hierarchical Agglomerative Clustering

PROFESSIONAL EDUCATION

BITS Pilani, India 2013 - 2018

Bachelor of Engineering (Hons.), major in Electronics & Instrumentation
Master of Sciences (Hons.) in Biological Sciences

SKILLS

Proficient:

Languages: Python, C
Packages: Django for web, pandas, NLTK, scikit-learn, matplotlib
Tools: Git, Docker

Familiar:

Languages: JS, MATLAB, Scheme
Databases: MySQL, MongoDB (NoSQL)
Packages: D3.js (visualization), Flask

AWARDS & ACHIEVEMENTS

Runner Up-Microsoft

Code.Fun.Do. Hackathon Finals consisted of 46 Teams from IITs, IIITs and other top universities in India

Selected to Student Council for Cultural Affairs - 7 member body responsible for organization and budgeting of India's second largest college festival

Head of Department of Visual Media (2016) Lead a technical Team of 40+ members to build websites, payment portals and other software for student fests

RELEVANT COURSES

- ✦ Probability & Statistics
- ✦ Computer Programming
- ✦ Neural Networks & Fuzzy Logic
- ✦ Digital Image Processing
- ✦ Intro to AI - edX
- ✦ Intro to Machine Learning - Udacity