Subendhu Rongali

srongali@cs.umass.edu | 608.622.1669 | 127 Brittany Mnr Dr A, Amherst MA 01002

EDUCATION

UNIVERSITY OF MASSACHUSETTS AMHERST
MS/PhD in Computer Science
Expected Apr 2022 | Amherst, MA
GPA: 4.0/4.0

INDIAN INSTITUTE OF TECHNOLOGY MADRAS
BTech in Computer Science & Engineering
Grad. May 2014 | Chennai, India
GPA : 8.8 / 10

FIITJEE JUNIOR COLLEGE
Grad. May 2010 | Hyderabad, India
Percentage : 97.9

COURSEWORK

GRADUATE
Advanced Algorithms
Advanced Software Engineering
Machine Learning
Programming Languages

UNDERGRADUATE
Artificial Intelligence
Basic Graph Theory
Decision Models
Fundamentals of Operations Research
Introduction to Machine Learning
Natural Language Processing
Social Network Analysis

SKILLS

PROGRAMMING
Over 5000 lines:
Python • C# • C • Java • Javascript
Over 1000 lines:
Coq • C++ • CSS • PHP • Assembly • Intersystems Cache
Familiar:
Lisp • Prolog • MySQL

MACHINE LEARNING
Python frameworks:
PyTorch • Caffe • Pandas • Scikit • TensorFlow • Theano
Other languages:
MATLAB • R

SOFTWARE ENGINEERING
Coq • Genprog • Daikon

WORK EXPERIENCE

EPIC SYSTEMS CORP. | Software Developer
Oct 2015 – Sep 2017 | Verona, WI
- Part of the R&D team that worked on the Ambulatory (Outpatient) Software.
- Lead developer/owner for Lifetime, a visual and interactive display of a patient's lifetime clinical data like physician encounters, problems and medications.
- Owner for Growth Charts module.

IBM RESEARCH | Research Software Engineer
Oct 2014 – Sept 2015 | Bangalore, India
- Worked with Watson, Cognitive Research, and Smarter Planet Solutions teams on a number of research problems, both in-house and for clients.
- Published work in COMSNETS, SmartGridComm, and IEEE-ISGT.

ADOBE ADVANCED TECHNICAL LABS | Research Intern
May 2013 – Jul 2013 | Bangalore, India
- Developed a Privacy Preserving Web Analytics solution based on Elliptic Curve Cryptography.
- Implemented the back-end analytics monitor in Python, and built a browser plug-in, web framework to demonstrate the process in real time.

CURRENT RESEARCH PROJECTS

- Safe and interpretable machine learning in health-care
  Work in collaboration with Prof. Hong Yu.
  Projects include predictive modelling, safe RL, and medical knowledge graphs

- Automatic proof completion/repair
  Work in collaboration with Prof. Yuriy Brun, Prof. Arjun Guha, and Emily First. We leverage language models to model the formal verification langauge - Coq, and automatically construct proofs.

RELEVANT PUBLICATIONS

- Learning Latent Space Representation with Correlational Neural Network to Predict Patient Outcome using Electronic Health Records
  Subendhu Rongali & Hong Yu. Proceedings of 3rd International workshop on Biomedical Informatics with Optimization and Machine Learning at IJCAI 2018

- Taxonomy grounded aggregation of pre-trained flat classifiers
  Amrita Saha, Sathish Indurthi, Shantanu Godbole, Subendhu Rongali & Vikas C. Raykar. Initially under consideration at the 19th International Conference on Artificial Intelligence and Statistics (AISTATS 2016)
  https://arxiv.org/pdf/1512.00355.pdf.

- iPlug: Decentralized Dispatch of Distributed Generation
  Subendhu Rongali, Tanuja Ganu, Manikandan Padmanabhan, Vijay Arya, Shivkumar Kalyanaraman & Mohamad Iskandar Petra. Proceedings of 8th International Conference on Communication Systems and Networks (COMSNETS 2016)

- From Multiple Views to Single View: A Neural Network Approach
  Subendhu Rongali, Sarath Chandar A P & Balaraman Ravindran. Proceedings of 2nd ACM-IKDD Conference on Data Sciences 2015