Indukala Naladala

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Education

Georgia Institute of Technology, College of Computing   Atlanta, GA
Master of Science in Computer Science   Aug. 2019 - Dec. 2020
- Courses: Introduction to Graduate Algorithms | Machine Learning for Trading | Computer Networks
- Graduate Teaching Assistant for User Interface Design course with Prof. Gregory Abowd

National Institute of Technology Karnataka (NITK)   Surathkal, India
Bachelor of Technology in Computer Science and Engineering, GPA: 9.5/10   Jul. 2015 - Jun. 2019
- Courses: Soft Computing | Data Warehousing & Mining | Information Retrieval | Advanced Data Structures | Cloud Computing | Database Management Systems | Operating Systems | Network Security | Cryptography | Compilers
- J. N. Tata Fellow, CSAB Scholar, INSPIRE Fellow, NTSE Scholar (among 1.3 million candidates) - Govt. of India

Experience

INRIA, France & NICT, Japan | Research Intern   Sophia Antipolis, France
Pull-based Mobile Video Streaming | Guide: Prof. Thierry Turletti   Aug. 2018 - Dec. 2018
- Proposed a name-based mobile streaming scheme that allows efficient video content delivery by exploiting a smart pulling mechanism designed for information-centric networks *(accepted at IEEE CCNC 2020)*
- Leveraged in-network caching and coding to enable fast packet loss recovery and high QoE levels

INRIA, France | Summer Intern   Sophia Antipolis, France
Integration of R2lab testbed with ns-3 | Guide: Prof. Walid Dabbous   May. 2018 - Jul. 2018
- Interfaced R2lab testbed with ns-3 simulator to help researchers in emulating wireless/wired network topologies
- Wrote nepi-ng scripts to automate route configuration, image loading and packet capturing in emulation clients

Samsung R&D Institute, India | Summer Intern   Bangalore, India
Simulation of DRAM Controller | Guide: Dr. Praveen Kondugari   May. 2017 - Jul. 2017
- Analyzed gem5 framework and simulated high-level event-based DRAM Controller using SystemC and TLM 2.0
- Evaluated performance of multi-processor system by capturing interactions b/w DRAM Controller, CPUs, GPUs, I/O

Skills

Languages/Libraries	C/C++ (Most Proficient), Python, Java, MATLAB, Django, NumPy, SciPy, pandas, OpenCV
Tools/Frameworks	SQL, PHP, HTML/CSS, Keras, AWS, Heroku, Git, LaTeX, gem5, Verilog, ns-3

Key Projects

Ship Lifetime Estimation using Random Forest *(published in ICACCI 2018)*
Used histogram comparison to determine corrosion damage and estimated the lifetime of ship parts. Segmented post corrosion image and classified segments as uncorroded/corroded using Random Forest with 92% accuracy.

Textile Waste Damage Analysis using ANN
Performed feature selection using Fuzzy Sets; designed Artificial Neural Network (ANN) using Predictive Regression Model (optimized using Particle Swarm Optimization) to predict amount of textile waste that will be generated.

Online Research Internship Portal
Developed a Django app to match students' research interests with mentors' projects (regret minimization framework).

Guest House Booking System
Developed an Android app which allows students to book rooms in guest house; deployed to AWS.

Document Clustering using PSO
Used Particle Swarm Optimization (PSO) to select features prior to k-means document clustering and compared performance with genetic and harmony search feature selection.

Dimensionality Reduction using Linear Discriminant Analysis (LDA)
Compared performance of LDA & Principal Component Analysis (PCA) by using both individually prior to classification.