Pujan Paudel

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ABOUT

I am an undergraduate researcher at The University of Southern Mississippi seeking for PhD opportunities in the field of informatics, societal computing and social networks for Fall 2020.

EDUCATION

Expected May 2020 — Bachelor of Sciences in Computer Sciences with Honors
Minor: Mathematics
GPA: 3.711
Major GPA: 3.893
Honors thesis: The Blind Spot of Twitter Bot Moderation
The University of Southern Mississippi

RESEARCH INTERESTS

- Social Bots in Twitter
- Complex Network Analysis
- Disinformation in Social Movements
- Big Data driven Social Science Research
- User Behavior Analysis in Social Movements

PEER REVIEWED CONFERENCE PAPERS

2019 How the Tables Have Turned: Studying the New Waves of Social Bots on Twitter Using Complex Network Analysis Techniques.
Pujan Paudel, Trung T. Nguyen, Amartya Hatua and Andrew H. Sung
ASONAM, 2019 - Advances in Social Network Analysis and Mining, 2019

2019 User Level Multi-Feed Weighted Topic Embedding for Studying Network Interaction in Twitter.
Pujan Paudel, Amartya Hatua, Trung T. Nguyen and Andre w H. Sung
International Conference on Big Data, 2019

CURRENT RESEARCH

1) **The devil is in the details**: Studying the Influence and Content Diffusion Dynamics of Social Bots During 2014 Italian Mayoral Elections (*In Progress*)
2) **The Blind Spot of Twitter Bot Moderation**: Studying the traits of accounts who survived amongst the batch of suspended accounts for enhancing bot detection algorithms (*In Progress)*

3) **Started from the bottom, now we are here**: Studying how complex botnets can be hierarchically uncovered through single seed accounts to discover methods for botnet discovery in the wild (*In Progress*)

TALKS AND PRESENTATIONS

2019 *How the Tables Have Turned: Studying the New Waves of Social Bots on Twitter Using Complex Network Analysis Techniques.* Oral presentation given at the 2019 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining. Vancouver, Canada*, **27*-30 August 2019**

2019 *User Level Multi-Feed Weighted Topic Embedding for Studying Network Interaction in Twitter.* Oral presentation given at 2019 International Congress on Big Data San Diego, USA,**25-30 June 2019**

2019 *Analyzing the effectiveness of Twitter Bots during Political campaigns: A Case Study of 2014 Mayoral Elections in Italy.* Oral presentation given at the USM Undergraduate Research Symposium, Hattiesburg MS, **April 2019**

2018 *QuickLabel – Accelerating semantic segmentation annotation pipeline leveraging Computer Vision Algorithms.* Oral presentation given at the USM Undergraduate Research Symposium, Hattiesburg MS, **April 2018**

RESEARCH EXPERIENCE

June 2018 – Present	Social Bots in Twitter, Disinformation in Social Movements, Social Network Analysis, Information Diffusion, Information Retrieval Advisor: Dr. Andrew H. Sung
January 2017 - June 2018	Conversational Agents, Human Computer Interaction, Semantic Image Segmentation, Indoor Autonomous Navigation Advisor: Dr. Beddhu Murali

AWARDS and HONORS

2019 Runner Up, USM Undergraduate Research Symposium

2017 Department of Defense (DOD) Technology Knowledge Scholar

2016 Best Innovation Application, CalHacks 2019

2016 Best IBM Watson Hack, HackRice 2016

TEACHING EXPERIENCE

2019 CSC 101 - Labs, Teaching Assistant

2018 CSS 405 - Advanced Internet: CGI Programming, Teaching Assistant

PROGRAMMING ENVIRONMENTS

Languages: Python, C, C++, Java, Javascript, C#
Databases: Cassandra, MongoDB, MySQL
Frameworks: React, React Native, Express, Android, IOS
Scientific Computing: Numpy, Scipy, Pandas
Network Analysis: NetworkX, NDLib, UCINet, Pajek
Data Science: Scikit-learn, Keras

PROJECTS

Software Projects

QuickLabel — Created Web-Based Image Segmentation Tool for faster creation of Semantic Segmentation Datasets. The tool was used to create a dataset for Indoor Navigation system.

Voice Assistant Language Tutor — Developed a Voice Driven Language tutor (based on Amazon Alexa Skill) which was a verbal communication tool for teaching user multiple languages (Duolingo Style) in an integrated environment.

Medical Dissection Data Collection — Created an iPad application for William Carey University in enhancing the curriculum of Medicine by engaging in innovative data collection/grading strategies for the school. Applied Apple's new AR Kit for effective visualization of Medical Atlas Images while the students work on the dissection.

Memory Retention Voice Agent — Created an iPad application for USM Psychology department to study the feasibility of voice assistant technology in retention experiments of single digit mathematical calculations for cognitively weaker children.

Research Projects

Indoor Autonomous Navigation — Evaluated several Reinforcement Learning Methods for Indoor Autonomous navigation and tested multiple algorithms to prepare the gap analysis and traceability matrix for the field