

# SNIGDHA PETLURU

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## EDUCATION

### University of North Carolina at Chapel Hill

PhD in Information Science

Focus: Machine Learning, Visual Analytics, HCI

University Merit Fellowship Awardee

2017-2021 (expected)

*Current*

### University of Maryland, College Park

Master of Information Management, College of Information Studies

Data Analytics Concentration, 2017

GPA: 4.0

### JNTU Hyderabad

Bachelor of Technology, Information Technology, 2015

Department Topper – Roll of Honor

GPA: 4.0

## EXPERIENCE

### Graduate Research Assistant

Chapel Hill, NC

University of North Carolina, Chapel Hill Aug 2017 – current

- Currently working with Dr. David Gotz on an NSF-funded grant aimed at building better query construction, cohort selection, and comparison strategies during the machine learning pipeline.
- Design and conduct user experiments to identify and address challenges with current temporal query construction tools.

### Founder

College Park, MD

DataLeague

Jun 2016 – Dec 2016

- An Open Data Hackathon at the University of Maryland aimed at fostering innovation, transparency, and civic engagement.
- Developed the project and communication plan, collaborating with teams to track progress and resolve issues.

### Data Scientist Intern

McLean, VA

Coursalytics

Jun 2016 - Aug 2016

- Researched Natural Language Processing Techniques for effective Information Retrieval from documents.
- Created investigative visualizations to analyze the patterns associated with occurrence of word groups in text.
- Trained a Neural Network classifier to identify objects and the relationship between them, increasing efficiency by 7%.

### Graduate (Teaching) Assistant

College Park, MD

Honors College, University of Maryland Feb 2016 – May 2017

- Redesigned prototypes, wireframes, and maintained a Drupal website for the ACES Program.
- Assessed students' experiential learning course and evaluated their learning of cybersecurity applications in various fields.
- Conceptualized and created a lab series to introduce students to the Internet of Things through projects.

### IT Programmer

College Park, MD

Police Department, University of Maryland Nov 2015 - Feb 2016

- Designed and developed a web application to help background investigators assign, track and update the investigation process.
- Performed preventive maintenance on workstations in the department and analyzed security threats in the network to draft reports.

## RESEARCH

### Visual Analysis and Communication Lab (VACLab)

UNC-Chapel Hill

Jun 2017 - *Current*

- Design and develop visual analytics tools to minimize threats to validity and overcome selection bias in machine learning with high-dimensional data.

### Computational Journalism Lab

University of Maryland, College Park

Jun 2016 - May 2017

- Built predictive models to analyze user's interaction with commenting systems on the Washington Post's website in order to understand the business value proposition offered by commenting systems to digital media organizations.

### Maryland Cybersecurity Center

University of Maryland, College Park

Jun 2016 - May 2017

- Conducted experiments to examine the impact of personality and visual aesthetics on development of trust in mobile applications.

### Open Knowledge Lab

University of Maryland, College Park

Jun 2015 - Jun 2016

- Extracted and analyzed social media data to understand behavioral patterns of citizen scientists. Worked with the Smithsonian Environmental Research Center to understand the factors contributing to long-term volunteering in citizen science projects.

## SELECTED PROJECTS

**Feku:** A Chrome addon that can detect fake and exaggerated news.

**BolsterBot:** A conversational agent (a.k.a. chatbot) that provides victims of cyber-bullying and cyber-harassment a safe space to share their thoughts.

**Disaster Recovery Prediction:** Worked with the United Nations Global Pulse to analyze Twitter and visualize the timeline for recovery of people affected by natural disasters.

**Predicting Yelp Reviewer Reputation:** A recommender system with a unique leniency score to identify the reputation of reviewers on Yelp.

**Sarcasm Detection - Ensemble Methods:** A semi-supervised machine learning application with a feedback-loop to detect sarcasm in tweets.

## SKILLS

Machine Learning, Data Visualization, Visual Analytics, HCI

Hypothesis Testing, Information Retrieval, Recommender Systems

**Statistical Analysis:** R, Python, SAS, SPSS, TensorFlow, Spark

**Programming:** Python, Java, SAS, Linux/UNIX Admin

**Data Visualization:** Tableau, D3.JS, Kibana

**Databases:** Oracle, MySQL, Microsoft SQL Server

**Web Technologies:** HTML, Flask, Drupal, Zend, React