

PRIMARY RESEARCH INTERESTS

Online misinformation/deception detection
Health IT (including mobile health)
Social media analytics
Recommender systems
Business intelligence
Intelligent decision support technology and systems

RESEARCH FUNDING

External Research Grants

April 2024-March 2025, Co-Investigator. Classification and Nowcasting of Homicide Using Natural Language Processing and Machine Learning Techniques. American Public Health Association (APHA) and the Centers for Disease Control and Prevention (CDC). \$167,365.00

May 1, 2022 – December 31, 2024. Co-PI. Spear Fishing Detection Training with Gamification, Behavior, and Inclusiveness Design. North Carolina Partnership for Cybersecurity Excellence (NC-PaCE). NCAE-C-001- 2021: NCSU NCAE Excellence in Cybersecurity-NCSU-Spear phishing (NCSU prime, DoD/NSA funded). Accepted award notification on March 7, 2022. \$100,000

Jan. 1, 2022 – Dec. 31, 2026. Co-PI. Proactive and intelligent detection, assessment, intervention, and privacy protection of patients with depression in a mobile ubiquitous environment. National Natural Science Foundation of China. RMB 2.35 million (\$352,500). Award #72110107003.

Aug. 1, 2017 – July 31, 2021. Co-PI. “SaTC: CORE: Medium: Implicit One-handed Mobile User Authentication by Induced Thumb Biometrics on Touchscreen Handheld Devices.” National Science Foundation (NSF). Award #: CNS 1704800. \$718,185.

September 1, 2015 – Aug. 30, 2020. Co-PI. “SBE: Small: Behavioral Control of Deceivers in Online Attacks”. National Science Foundation (NSF). Award #: SES 1527684. \$499,912. Sept. 25, 2015 – Aug. 2019. MPI. “Using game mechanics to improve outcomes among stem cell transplant survivors.” National Institute of Health (NIH). Award #: 2R42CA168107-02. \$1,200,000

Sept. 2013-Aug. 2015. MPI. “Using game mechanics to improve outcomes among stem cell transplant survivors”. National Institute of Health (NIH). Supplement award. \$149,000.

Oct. 1, 2012 –September 30, 2015.PI. “EAGER: Toward a User-centered, Inclusive, and Personalized Approach to Mobile Web Adaptation.” National Science Foundation (NSF). Award #: IIS-1250395. \$287,870.

August 1, 2012 – July 31, 2014. MPI. “Using game mechanics to improve outcomes among stem cell transplant survivors”. National Institute of Health (NIH). \$300,000. Award #: 1R41CA168107-01.

July-August 2012. PI. The Kan Tong Po Visiting Professorship, Royal Society, United Kingdom. \$3,900.

April 1, 2009 – March 31, 2011. Co-PI. “Mining Comparative Relations of Products/Services from Web Opinions”. HK\$129,549. Strategic Research Grants (SRG), City University of Hong Kong. June. 2007-May 2008. Co-PI. “Fieldtrip: Using Internet-Based Multi-Media to Engage Teens on Education Issues”. NIH (National Institutes of Health). \$104,500. Award #: 1R41RR024089-01.

2006- 2007. PI. “Adaptive and Personalized Interfaces for Mobile Web”, Google Research Award, Google, Inc. \$10,000.

2007-2009. Senior personnel. MRI, National Science Foundation, \$180,000.

2004-2007. Co-PI. GAANN (Graduate Assistance in the Areas of National Need) Program, U.S. Department of Education. \$622,665

2005. Co-PI. “Security and accessibility of e-voting solutions from the State Election Board of Maryland” (with Andrew Sears, Aryya Gangopadhyay, Stephen Holden, George Karabatis, and Chris Law). State of Maryland. \$115,000.

2003, PI. “Cross-cultural effect on Computer-mediated Collaboration”. Wang Kuan Cheng Foundation, Chinese Academy of Sciences. \$3,000

2000-2002 Project Manager and Technical Lead. “LBA: A Multimedia-based Interactive E-Learning System”. Ford Foundation. \$300,000

Internal Grants

May 2024 -April 2025. Co-PI. Online misinformation characterization and detection from social media based on within-post multimodal content consistency. 2024. Truist Business Research and Innovation Program. UNCC. \$33,500

May 2024~Oct. 2024. PI. Live Streaming Channel Recommendation Based on Viewers’ Interaction Behavior: A Hypergraph-based Approach. Belk College Summer Research Grant. UNCC. \$10,000

Aug. 2023 – July 2024. Center for Geospatial Sensing and Analytics (GeoSAN) —Paving a Geospatial Way to Top Tier Research Excellence. UNCC Ignite Center proposal. \$10,000 with \$5,000 matching.

May 2023 – April 2024. PI. “Online misinformation characterization and detection from social media based on within-post multimodal content consistency”, 2023 Truist Business Research and Innovation Program. UNCC. \$45,000

May 2023-Oct. 2023. PI. “RPMIA: A Multi-Interactive Attention-based Deep Learning Approach to Product Rating Prediction. Belk College Summer Research Grant. UNCC. \$10,000

May 2023 – Sept. 2023, PI, “A Multimodal Transfer Learning Approach to Cross-domain Fake News Detection”, SDS Seed Grants for Data Science, UNCC. \$11,000

May – Aug. 2022. PI. “What Makes Online Misinformation Go Viral: A Data Science Approach to Understanding of Online Misinformation Dissemination”, SDS Seed Grants for Data Science, UNCC. \$15,000.

May – Aug. 2022. PI. Domain Knowledge-Enhanced Automatic Detection of Suicidal Ideation from Social Media Content. Belk College Summer Research Grant. UNCC. \$10,000

May – Aug. 2021. PI. Augmenting Humans’ Ability in Detecting Online Fake Financial News with Multi-modal Deep Learning. Belk College Summer Research Grant. UNCC. \$10,000

May 5, 2020 – Aug.5, 2021. PI. “Understanding and Resolving a Paradox between Privacy Protection and Data Gathering/Analytics for an mHealth System in Support of Depression Monitoring, Management, and Intervention. SDS Seed Grants for Data Science, UNCC. \$10,000.

Nov. 1, 2010 – May 30, 2011. PI. Undergraduate Research Assistant Support (URAS) Program. UMBC. \$1,500.

July 2007 – August 2009. PI. “The Structural Evolution of Open Source Community and Software - An Exploration of Conway’s Law”. DRIF research fund. UMBC. \$7,962.

2006-2007. UMBC Faculty Research Fellowship.

2005-2006. PI. “Group Support Systems and Majority Influence: Assessing the Impact of Two Different Cultures”. \$800. DRIF fund, UMBC.

Summer 2005.PI. “Personalized Information Access and Navigation through Handheld Mobile Devices”. Summer Faculty Fellowship (SFF) from UMBC, \$4,000.

2003-2004, PI. “Bring Information to the Wireless World: Personalized and Dynamic Multimedia Content Delivery to Wireless Users”. DRIF fund, UMBC, \$5,000.