

SINDHU KIRANMAI ERNALA

CONTACT	<p>CODA Tech Square 756 W Peachtree St NW Atlanta, GA 30308</p> <p>Email: sernala3@gatech.edu Web: www.sindhuernala.com</p>
RESEARCH INTERESTS	<p>I am broadly interested in Computational Social Science, applying methods from machine learning, statistical modeling, and natural language processing to questions around health and well-being. My research aims to understand the efficacy of social media for mental health interventions.</p>
EDUCATION	<p>Doctor of Philosophy, Computer Science <i>2016 - present</i> Georgia Institute of Technology Advisor: Munmun De Choudhury Committee: Eric P.S. Baumer, Moira Burke, Elizabeth Mynatt, Diyi Yang</p> <p>Bachelor of Technology, Computer Science with Master of Science, Exact Humanities <i>2011 - 2016</i> International Institute of Information Technology Hyderabad (IIIT-H), India Thesis title: Towards Construction of Social Automaton</p>
AWARDS & HONORS	<ul style="list-style-type: none">• Facebook Ph.D. Fellowship Finalist (2020)• Computing Research Association (CRA-W) Grad Cohort for Women Attendee. Funded attendance (2019)• Dean's Merit List (top 5% of the class) for Academic Excellence for 2014, 2015 at IIIT-H• Commendation award for contributions to all round activities and leadership at IIIT-H
EXPERIENCE	<p>Research Intern, Core Data Science <i>May 2020 - August 2020</i> <i>Facebook Inc., Menlo Park</i></p> <p>Graduate Research Assistant <i>August 2016 - present</i> <i>Social Dynamics and Well-being Lab, Georgia Tech</i></p> <p>External Research Collaborator <i>August 2019 - May 2020</i> <i>Pro Unlimited @ Facebook Inc.</i></p> <p>Core Data Science Intern <i>May 2019 - August 2019</i> <i>Facebook Inc., Menlo Park</i></p> <p>Research Intern <i>May 2017 - August 2017</i> <i>Information Science Institute, USC</i></p> <p>Research Intern <i>May 2015 - August 2015</i> <i>Xerox Research Center India</i></p> <p>Visiting Student Researcher <i>May 2014 - July 2014</i> <i>Insight Center for Data Analytics, Ireland</i></p>

PUBLICATIONS **Refereed Journal Articles**

Birnbaum, M.*, **Ernala, S. K.***, Rizvi, A. F., Arenare, E., Van Meter, A., De Choudhury, M., Kane, J. (2019). Detecting Relapse in Youth with Psychotic Disorders Utilizing Patient-Generated and Patient-Contributed Digital Data from Facebook. In *Nature Partner Journal - Schizophrenia*. **npj Schizophrenia**. (** co-first authors*)

Saha, K., Torous, J., **Ernala, S. K.**, Rizuto, C., Stafford, A., & De Choudhury, M. (2019). A Computational Study of Mental Health Awareness Campaigns on Social Media. In **Translational Behavioral Medicine**.

Birnbaum, M.*, **Ernala, S. K.***, Rizvi, A., De Choudhury, M. & Kane, J. (2017). A Collaborative Approach to Identifying Social Media Markers of Schizophrenia by Employing Machine Learning and Clinical Appraisals. In **Journal of Medical Internet Research (JMIR)**. (** equal contribution*)

Refereed Conference Proceedings

Ernala, S. K., Burke, M., Leavitt, A., Ellison, N.B. (2020). How Well Do People Report Time Spent on Facebook? An Evaluation of Established Survey Questions with Recommendations. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems. CHI 2020.

Saha, K., **Ernala, S. K.**, Dutta, S., Sharma, E., De Choudhury, M. (2019). Understanding Moderation in Online Mental Health Communities. In 22nd International Conference on Human-Computer Interaction. HCI 2020.

Ernala, S. K., Birnbaum, M., Candan, K., Rizvi, A., Sterling, W., Kane, J., & De Choudhury, M. (2019). Methodological Gaps in Predicting Mental Health States from Social Media: Triangulating Diagnostic Signals. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems. CHI 2019.

Ernala, S. K., Labetoulle, T., Bane, F., Birnbaum, M., Rizvi, A., Kane, J., & De Choudhury, M. (2018). Characterizing Audience Engagement and Assessing its Impact on Social Media Disclosures of Mental Illnesses. In Proceedings of the 12th International AAAI Conference on Web and Social Media. ICWSM 2018.

Ernala, S. K., Rizvi, A., Birnbaum, M., Kane, J., & De Choudhury, M. (2018). Linguistic Markers Indicating Therapeutic Outcomes of Social Media Disclosures of Schizophrenia. In Proceedings of the 21st ACM Conference on Computer-Supported Cooperative Work and Social Computing. CSCW 2018 Online First.

Sharma, E., Saha, K., **Ernala, S. K.**, Ghoshal, S., & De Choudhury, M. (2017). Analyzing Ideological Discourse on Social Media: A Case Study of the Abortion Debate. In Proceedings of the CSSA's Annual Conference on Computational Social Science. CSS 2017.

Banerjee, J., Raravi, G., Gupta, M., **Ernala, S. K.**, Kunde, S., & Dasgupta, K. (2016). CAPReS: Context Aware Persona Based Recommendation for Shoppers. In AAAI Conference on Artificial Intelligence. AAAI 2016.

Refereed Workshop Papers

- [1] Sapienza, A.*, **Ernala, S. K.***, Bessi, A., Lerman, K., & Ferrara, E. (2018). DISCOVER: Mining Online Chatter for Emerging Cyber Threats. In Proceedings of the 3rd Workshop on Computational Methods in CyberSafety, Online Harassment and Misinformation at WWW 2018. (** equal contribution*)
- [2] Poddar, S.*, **Ernala, S. K.***, & Singh, N. (2016). PACMAN: Psycho and Computational Framework of an Individual. In Proceedings of the Workshop on Emotion and Sentiment Analysis at the 10th International Conference on Language Resources and Evaluation (LREC). (** co-first authors*)
- [3] Poddar, S.*, **Ernala, S. K.***, Singh, N., & Samvara, A. (2016). Towards a Ubiquitous Model of an Individual in Social Machines. In Proceedings of the 25th International Conference Companion on World Wide Web. WWW 2016. (** co-first authors*)
- [4] Asooja, K., **Ernala, S. K.**, & Buitelaar, P. (2015). UNLP at the MediaEval 2015 C@merata Task. In MediaEval 2015.
- [5] Asooja, K., **Ernala, S. K.**, & Buitelaar, P. (2014). UNLP at the MediaEval 2014 C@merata Task. In MediaEval 2014.

Refereed Presentations/Abstracts

- [1] **Ernala, S. K.**, Rizvi, A., Birnbaum, M., Kane, J., & De Choudhury, M. (2018). Using Social Media to Identify Risk Markers and Predict Relapse in Schizophrenia. Presented at Social Media and Health Workshop at the International Conference on Web and Social Media. ICWSM 2018
- [2] Birnbaum, M., De Choudhury, M., Rizvi, A., **Ernala, S. K.**, Cecchi, G., & Kane, J. (2018). Identifying Psychotic Symptoms and Predicting Relapse through Social Media Data. In International Conference on Early Intervention in Mental Health. IEPA 2018.
- [3] Birnbaum, M., De Choudhury, M., Rizvi, A., **Ernala, S. K.**, & Kane, J. (2018). Identifying Psychotic Symptoms and Predicting Relapse through Social Media Data. In Fourth Meeting on Patient Reported Outcomes and Person Centered Care in Mental Health - Symptoms of Mental Disorders: New Research, Treatments, Digital Health, American Association for the Advancement of Science. AAAS.
- [4] Birnbaum, M., Rizvi, A., De Choudhury, M., **Ernala, S. K.**, Cecchi, G., & Kane, J. (2018). Identifying Psychotic Symptoms and Predicting Relapse Through Social Media. Schizophrenia Bulletin, 44(Suppl 1), S100.

Workshops Organized

- [1] Technology Ecosystems: Rethinking Resources for Mental Health. Held at CHI Conference on Human Factors in Computing Systems. CHI 2020.

PATENTS

- [1] Raravi, G., Kunde, S., Eswaran, S., Chander, D., Rangaswamy, N., Banarjee, J., Ernala, S. K., Radhakrishnan, M., & Sharma, P. Systems and methods for enhancing shopping experience in physical stores
- [2] Banarjee, J., Raravi, G., Gupta, M., Ernala, S. K., Kunde, S., & Dasgupta, K. Method and system for data processing to recommend list of physical stores in real-time

TALKS & DEMOS

- How well do people report time spent on Facebook? CDS tech talk. Facebook, Inc. 2019.
- Mining online chatter for emerging cyber threats, Cybersecurity Lecture series, Georgia Tech. Spring 2019.

- Intersection of social and clinical pathways to care for mental illnesses through social media, ITU Kaleidoscope Conference, Georgia Tech. Fall 2019.
- Intersection of social and clinical pathways to care for mental illnesses through social media, GVU Fall Research Showcase, Georgia Tech. 2019.
- THRIVE: Technology and Health Related Information to Improve Wellness, GVU Fall Research Showcase, Georgia Tech. 2018.
- DISCOVER: Generating early warning of cyber threats from online discussions. AI Seminar, Information Sciences Institute, University of Southern California. 2018.
- Examining linguistic markers leading to and following social media disclosures of schizophrenia, GVU Fall Research Showcase, Georgia Tech. 2017.
- Examining behavioral markers leading to social media disclosures on schizophrenia, GVU Fall Research Showcase, Georgia Tech. 2016.

SERVICE &
SKILLS

PC Member: WNUT 2019 at EMNLP, The Web Conference 2020, CHI Late Breaking Work, ICWSM (2019, 2020), ACM WebSci (2020).

Reviewing: ICWSM, CSCW, CHI, ECIS, J. Medical Internet Research (JMIR), ACM Trans. Computer-Human Interaction (TOCHI).

Mentoring: I.AM.Grad Computing Workshop in Atlanta (2019)
 Kathan Kashiparek, MS-CS
 Amir Girgis, BS-CS
 Tristan Labetoulle, MS-CS
 Fred Bane, MS-HCI

Programming: Python, R, C++, Java, C, SQL, Bash, Presto, Javascript