## Salvatore Giorgi

CONTACT Information sal.giorgi@gmail.com (267) 312-3734 www.salvatoregiorgi.com github.com/sjgiorgi

RESEARCH INTERESTS Machine learning applications to substance use and recovery, measuring relationships between individuals and their communities through language

**EDUCATION** 

University of Pennsylvania, Philadelphia, Pennsylvania

Ph.D., Computer Science, 2025 (expected)

• Advisors: H. Andrew Schwartz and Lyle Ungar

Temple University, Philadelphia, Pennsylvania

Master of Science, Electrical Engineering, 2014

• Thesis Title: "Adaptive Neural Control of a Gimbaled Laser Targeting System"

Bachelor of Science, Electrical Engineering, 2012

## Community College of Philadelphia, Philadelphia, Pennsylvania

Associate in Science, Engineering, 2009 Associate in Science, Mathematics, 2009

**Publications** 

Giorgi, S., Lynn, V., Gupta, K., Ahmed, F., Matz, S., Ungar, L.H., and Schwartz, H.A., Correcting Sociodemographic Selection Biases for Population Prediction from Social Media, ICWSM 2022

Giorgi, S., Nguyen, K.L., Eichstaedt, J.C., Kern, M.L., Yaden, D.B., Seligman, M.E.P., Ungar, L.H., Schwartz, H.A., and Park, G., Regional Personality Assessment through Social Media Language, Journal of Personality 2021

Giorgi, S., Ungar, L.H., and Schwartz, H.A., Characterizing Social Spambots by their Human Traits, ACL Findings 2021

Giorgi, S., Guntuku, S.C., Eichstaedt, J.C., Pajot, C., Schwartz, H.A., and L.H., Well-Being Depends on Social Comparison: Hierarchical Models of Twitter Language Suggest That Richer Neighbors Make You Less Happy, ICWSM 2021

Giorgi, S., Zavarella, V., Tanev, H., Stefanovitch, N., Hwang, S., Hettiarachchi, H., Ranasinghe, T., Kalyan, V., Tan, P., Tan, P., Andrews, M., Hu, T., Stoehr, N., Ignazio Re, F., Vegh, D., Atzenhofer, D., Curtis, B., and Hurriyetoglu, A., *Discovering Black Lives Matter Events in the United States: Shared Task 3, CASE 2021*, Challenges and Applications of Automated Extraction of Socio-political Events from Text (CASE) 2021

Himelein-Wachowiak, M., **Giorgi, S.**, Devoto, A., Rahman, M., Ungar, L.H., Schwartz, H.A., Epstein, D.H., Leggio, L., and Curtis, B., *Bots and misinformation spread on social media: A mixed scoping review with implications for COVID-19*, JMIR 2021

Yaden, D.B., **Giorgi, S.**, Kern, M.L., Adler, A., Ungar, L.H., Seligman, M.E.P., and Eichstaedt, J.C., *Beyond beliefs: Multidimensional Aspects of Religion and Spirituality in Language*, Psychology of Religion and Spirituality 2021 (In Press)

Jaidka, K., Eichstaedt, J.C., Giorgi, S., Schwartz, H. A., and Ungar, L.H., Information-seeking

- vs. sharing: Which explains regional health? An analysis of Google Search and Twitter trends, Telematics and Informatics 2021
- Zamani, M., Schwartz, H.A., Eichstaedt, J., Guntuku, S.C., Ganesan, A.V., Clouston, S., **Giorgi, S**, *Understanding Weekly COVID-19 Concerns through Dynamic Content-Specific LDA Topic Modeling*, NLP+CSS 2020
- **Giorgi, S**, Yaden, D.B., Eichstaedt, J.C., Ashford, R.D., Buffone, A., Schwartz, H.A., and Ungar, L.H., *Cultural Differences in Tweeting about Drinking Across the U.S.*, International Journal of Environmental Research and Public Health 2020
- Abebe, R.\*, **Giorgi, S.**\*, Tedijanto, A., Buffone, A.E.K., Schwartz, H.A., *Quantifying Community Characteristics of Maternal Mortality Using Social Media*, The Web Conference 2020
- Jaidka, K., Giorgi, S, Schwartz, H.A., Kern, M.L., Ungar, L.H., and Eichstaedt, J.C., Estimating geographic subjective well-being from Twitter: A comparison of dictionary and data-driven language methods., PNAS 2020
- Eichstaedt, J. C., Kern, M. L., Yaden, D. B., Schwartz, H. A., Giorgi, S., Park, G., Hagan, C.A., Tobolsky, V., Smith, L. K., Buffone, A., Iwry, J., Seligman, M. E. P., and Ungar, L. H., Closed and Open Vocabulary Approaches to Text Analysis: A Review, Quantitative Comparison, and Recommendations, Psychological Methods 2020 (In Press)
- Stevens, R., Brawner, B.M., Kranzler, E.C., **Giorgi, S.**, Lazarus, E., Aberal, M., Huang, S., and Ungar, L.H., Same drugs, new media: A mixed methods study of youth substance use tweets in the U.S., JMIR Public Health and Surveillance, 2020
- Ashford, R.D., **Giorgi, S.**, Mann, B., Pesce, C., Sherritt, L., Ungar, L.H., Curtis, B., *Digital recovery networks: Characterizing user participation, engagement, and outcomes of a novel recovery social network smartphone application*, Journal of Substance Abuse Treatment, 2019
- Matero, M., Idnani, A., Son, Y., **Giorgi, S.**, Vu, H., Zamani, M., Limbachiya, P., Guntuku, S., and Schwartz, H. A., *Suicide Risk Assessment with Multi-level Dual-Context Language and BERT*, CLPsych, 2019
- Lynn, V., Giorgi, S., Balasubramanian, N., and Schwartz, H. A., Tweet Classification without the Tweet: An Empirical Examination of User versus Document Attributes, NLP+CSS, 2019
- Giorgi, S., Preotiuc-Pietro, D., Buffone, A., Rieman, D., Ungar, L., and Schwartz H.A., The Remarkable Benefit of User-Level Aggregation for Lexical-based Population-Level Predictions, EMNLP, 2018
- Zamani, M., Schwartz, H.A., Lynn, V., **Giorgi, S.** and Balasubramanian, N., Residualized Factor Adaptation for Community Social Media Prediction Tasks, EMNLP, 2018
- Clifton, J., Baker, J.D., Park, C.L., Yaden, D.B., Clifton, A., Terni, P., Miller, J.L., Zeng, G., **Giorgi, S.**, Schwartz, H.A., Seligman, M.E.P., *Primal World Beliefs*, Psychological Assessment, 2018
- Guntuku, S.C., Giorgi, S., and Ungar, L., Current and Future Psychological Health Prediction using Language and Socio-Demographics of Children for the CLPysch 2018 Shared Task, NAACL, 2018
- Eichstaedt, J., Schwartz, H.A., **Giorgi, S.**, Kern, M., Park, G., Sap, M., Labarthe, D., Larson, E., Seligman, M., and Ungar, L., *More Evidence that Twitter Language Predicts Heart Disease: A*

Response and Replication, PsyArXiv, 2018

Curtis, B., **Giorgi, S.**, Buffone, A., Ungar, L., Ashford, R., Hemmons, J., Summers, D., Hamilton, C. and Schwartz, H.A., Can Twitter Be Used To Predict Excessive Drinking at the County Level?, PLOS ONE, 2018

Schwartz, H.A., Giorgi, S., Sap, M., Crutchley, P., Ungar, L., and Eichstaedt, J., *DLATK: Differential Language Analysis ToolKit*, EMNLP, 2017

Almodaresi, F., Ungar, L., Kulkarni, V., Zakeri, M., **Giorgi, S.**, and Schwartz, H.A., On the Distribution of Lexical Features in Social Media, ACL, 2017

Abdul-Mageed, M., Buffone, A., Peng, H., **Giorgi, S.**, Eichstaedt, J., and Ungar, L., *Recognizing Pathogenic Empathy in Social Media*, ICWSM, 2017

Carpenter, J., Preotiuc-Pietro, D., Flekova, L., **Giorgi, S.**, Hagan, C., Kern, M.L., Buffone, A., Ungar, L.H, and Seligman, M.E., *Real men don't say "cute": Using automatic language analysis to isolate inaccurate aspects of stereotypes.* Social Psychological and Personality Science, 2016

Smith, L., Giorgi, S., Solanki, R., Eichstaedt, J., Schwartz, H.A., Abdul-Mageed, M., Buffone, A., and Ungar, L., Does well-being translate on Twitter? A comparative evaluation of English and Spanish well-being lexica. EMNLP., 2016

Preotiuc-Pietro, D., Carpenter, J., **Giorgi, S.**, and Ungar, L., *Studying the Dark Triad of Personality using Twitter Behavior*. CIKM., 2016.

Flekova, L., Carpenter, J., **Giorgi, S.**, Ungar, L., and Preoiuc-Pietro, D., *Analysing Biases in Human Perception of User Age and Gender from Text.* ACL., 2016.

Flekova, L., Preotiuc-Pietro, D., Carpenter, J., **Giorgi, S.**, and Ungar, L., *Analyzing crowdsourced assessment of user traits through Twitter posts*, Proceedings of the Third AAAI Conference on Human Computation and Crowdsourcing. HCOMP, 2015.

Saleheen, F., Giorgi, S., Smith, Z., Picone, J., and Won, C.H., Virtual Teaching Assistant for Electrical Engineering Science: Initial Study, ASEE Mid Atlantic Section Conference, 2015.

Saleheen, F., **Giorgi, S.**, Smith, Z. T., Picone, J., and Won, C. Design and Evaluation of a Webbased Virtual Open Laboratory Teaching Assistant (VOLTA) for Circuits Laboratory, 2015 ASEE Annual Conference and Exposition, 2015.

Giorgi, S., Saleheen, F., Ferrese, F., and Won, C.H., Adaptive Neural Replication and Resilient Control Despite Malicious Attacks, 5th International Symposium on Resilient Control Systems (IS-RCS), 2012.

RESEARCH AND PROFESSIONAL EXPERIENCE

## National Institute on Drug Abuse (NIDA)

Computer Systems Analyst

2020 - Present

World Well Being Project, University of Pennsylvania

Senior Data Scientist 2015 - 2020

<sup>\*</sup> denotes equal contributions.

## Linguistic Data Consortium, University of Pennsylvania

 $Software\ Developer$ 

December, 2014 - March 2015

2012

	Control, Sensor, Network and Perception Laboratory, Philadelphia, Pennsylvania	
	Research Assistant 2011 -	August, 2014
TEACHING EXPERIENCE	Temple University, Philadelphia, Pennsylvania	
	Senior Design Project II, ENGR 4296	2013
	Intro to Engineering, ENGR 1101	2013
	Microprocessor Systems Laboratory, ECE 3613	2012
	Community Outreach and High School Programs	
	Ayuda Center STEM Program, Temple University	2013-2014
	PACTS Youth Program, Franklin Institute	2013
	Women's Engineering Exploration, Temple University	2012
	EE01 Intro to Robotics, Temple University	2012
Honors and	Paper and Poster Awards	
Awards	Outstanding Reviewer: EMNLP	2020
	First Prize: Poster Contest, Middle Atlantic Section of ASEE for Design of the Virtual Laboratory Assistant for Electrical Circuits Laborato	2014 pries
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Best In Track: Complex Networked Control Systems, 5th ISRCS

for Adaptive Neural Replication and Resilient Control Despite Malicious Attacks