Shashanka Subrahmanya

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Education

2024 –	**PhD, Psychology**, *Stanford University*, Stanford.
2019 – 2021	**Master of Science, Computer Science**, *University of Southern California*, Los Angeles, GPA: 3.67/4.0.
2012 – 2016	**Bachelor of Engineering, Computer Science**, *Sri Jayachamarajendra College of Engineering, Mysuru*.

Publications

In prep.

Shashanka Subrahmanya, Nilam Ram, and Johannes C. Eichstaedt. *Understanding Affect Dynamics in Conversations: A Case Study Using Large-Scale Multimodal Corpus*.

Shashanka Subrahmanya, Nilam Ram, and Johannes C. Eichstaedt. *Modeling Affect Dynamics With Stochastic Differential Equations: A Large-Scale Study Using Passively Collected Social Media Language*.

Elizabeth Stade, Sharath Chandra Guntuku, Johannes Eichstaedt, Hansen A. Schwartz, Lyle Ungar, **Shashanka Subrahmanya**, and Megan Reynolds. *The language of depression*.

Jonas P. Schöne, **Shashanka Subrahmanya**, Tiffany Hsu, Sal Giorgi, Hansen A. Schwartz, and Johannes C. Eichstaedt. *The Validity of Measuring the Well-Being of Populations in the US and UK through Social Media Language*.

Published

2024	Aadesh Salecha, Molly E. Ireland, **Shashanka Subrahmanya**, João Sedoc, Lyle H. Ungar, and Johannes C. Eichstaedt. Large language models show human-like social desirability biases in survey responses, 2024.
2024	Siddharth Mangalik, Johannes C Eichstaedt, Salvatore Giorgi, Jihu Mun, Farhan Ahmed, Gilvir Gill, Adithya V. Ganesan, **Shashanka Subrahmanya**, Nikita Soni, Sean AP Clouston, et al. Robust language-based mental health assessments in time and space through social media. *NPJ Digital Medicine*, volume 7, page 109. Nature Publishing Group UK London, 2024.
2024	Oliver Fink, Wilfried Graf, **Shashanka Subrahmanya**, Aadesh Salecha, and Johannes C Eichstaedt. The language of conflict transformation: Assessing psychological change patterns in israeli-palestinian track two interactive problem solving. *Negotiation and Conflict Management Research*, volume 17. Carnegie Mellon University Library Publishing Service, 2024.
2024	Dorottya Demszky, C Lee Williams, Shannon T Brady, Shashanka Subrahmanya, Eric Gaudiello, Gregory M Walton, and Johannes C Eichstaedt. Computational language analysis reveals that process-oriented thinking about belonging aids the college transition. edworkingpaper no. 24-1033. *Annenberg Institute for School Reform at Brown University*. ERIC, 2024.
2022	Adithya Ganesan, Vasudha Varadarajan, Juhi Mittal, **Shashanka Subrahmanya**, Matthew Matero, Nikita Soni, Sharath Chandra Guntuku, Johannes Eichstaedt, and H.Andrew Schwartz. *WWBP-SQT-lite: Multi-level Models and Difference Embeddings for Moments of Change Identification in Mental Health Forums*. In *Proceedings of the Eighth Workshop on Computational Linguistics and Clinical Psychology*. Association for Computational Linguistics, 2022.

Research Experience

Computational Psychology & Well-Being Lab, Stanford HAI

Sep,2021 – Aug,2024

Academic Staff - Research, Adv: Dr.Johannes Eichstaedt.
- Collaborated on 10+ interdisciplinary research projects in NLP and Social Good.
- Contributed to and maintained DLATK, an open-source NLP framework used by 100+ researchers worldwide; integrated with Google Colab and prepared tutorials for a broader non-CS audience.
- Developed NLP for Social Sciences course for senior Ph.D. students.
- Ensured security, integrity, and availability of lab server housing PII data, with less than 2% yearly failure rate.

Marshall School of Business, University of Southern California

Sep,2019 – Aug,2021

Research Assistant, Adv: Dr.Dinesh Puranam.
- Researched Neural Variational Inference for Topic Modeling and benchmarked against LDA; observed better correlation between embedding-based metrics and human evaluation than traditional statistical metrics.
- Corroborated improvement of text classification models using label-word joint embeddings and Bayesian Hyperparameter tuning; performed model interpretability studies.

SPORT Lab, University of Southern California

Aug,2020 – Oct,2020

Research Programmer.
- Improved Deep Learning models for FPGA by developing static memory allocation and compiler optimizations.
- Reduced latency and energy consumption of models using their Boolean approximations.

Industry Experience

Compiler Tree Technologies, Mysuru, India

Jun,2018 – Dec,2018

Software Development Intern.
- Implemented compile-time software validation to increase hardware error detection by a factor of 10.
- Optimized program execution using Loop Fusion and Loop Unroll-Jam; released it under open-source license.

Micro Focus Software Development, Bengaluru, India

Jul,2016 – Dec,2017

Associate Software Engineer.
- Engineered Password Check-out for privileged access to AWS and OpenStack.
- Reduced response time by designing and developing a hierarchical index to database of privileged sessions.

Teaching Assistance

Fall, 2021 **PSYCH290: Natural Language Processing in the Social Sciences**, Stanford University.

Win, 2023 **PSYCH290: Natural Language Processing in the Social Sciences**, Stanford University.