Sid Mangalik

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☎ Google Scholar

Education

Stony Brook University

August 2020 - May 2025

Ph.D. in Computer Science

Stony Brook, NY

- Research in NLP and Computational Social Science, focus on human-centered AI/ML
- Advised by Dr. H. Andrew Schwartz and Dr. Ryan L. Boyd
- President of the Computer Science Graduate Student Organization (CSGSO)

Stony Brook University

August 2014 - May 2018

Stony Brook, NY

B.S. in Computer Science

- · Research thesis using NLP for authorship attribution, advised by Dr. Ritwik Banerjee
- Member of the highly selective Honors Computer Science program

Experience

Meta May 2024 - Present

Machine Learning Engineer PhD Intern

New York, NY

- · Worked with the Facebook Dating team to increase user growth and engagement metrics
- Developed highly scalable classifiers and tools leveraging sparse neural networks in PyTorch
- Conducted A/B testing on the production Facebook application
- Adopted standard machine learning best practices for model deployment

Monitaur Al August 2019 - May 2024

Research Scientist

Boston, MA (Remote)

- Wrote the foundational code of a machine learning model auditing system
- Conducted research to automatically identify harmful bias in data and models
- Created educational materials to teach data scientists about AI explainability
- Published materials on Fair & Safe AI, including The AI Fundamentalists podcast

Movable Ink May 2022 - August 2022

Data Scientist New York, NY

- Developed a contextual NLP pipeline to extract sales information from marketing materials
- Predicted click-through rate of emails using a BERT-based regressor based on text content
- Fine-tuned T5 and BART models to automatically generate engaging email subject lines

Technical Skills

Languages: Python, Java, C, JavaScript, MATLAB, R, TypeScript, Scala, GoLang, SML, Prolog, MIPS

Markup: HTML, CSS, LaTeX, JSON, CSV

Databases: SQL, MySQL, PostgreSQL, DB2, Snowflake, Redis

Technologies: AWS, GCP, pandas, scikit-learn, PyTorch, TensorFlow, Keras, HuggingFace Jupyter, Hadoop, Spark,

MapReduce, Docker, d3.js, Grafana, ReactJS, AngularJS

Concepts: Natural Language Processing, Machine Learning, Data Science, Artificial Intelligence, Neural Networks

Projects

COVID-19 Causal Language Inference: Research into causal inference between major events and language

Self Beliefs: Research into the classification and taxonomy of beliefs about the self.

Parenting Beliefs: Research into commonly expressed beliefs about the nature of parenting.

Predator Detection: Research into whether chat participants were predators with StanfordCoreNLP.

LUSId: Research into the effects of social demographics on scientific writing style using Mallet API.

QA Clarification Generation: Using GPT-2/LSTMs to generate clarification questions to improve NLP QA systems.

Patents and Publications

Robust language-based mental health assessments in time and space through social media | Nature Digital Medicine

- First of its kind research into creating robust mental health assessments across the United States in space and time
- Multidisciplinary project between UPenn, Stanford, Stony Brook, and Stony Brook Medicine
- · Combining expertise from computer science, machine learning, linguistics, psychology, and population health

I slept like a baby: using human traits to characterize deceptive ChatGPT and human text | IACT'23

· Identifying AI generated language using human traits that text generation systems fail to recreate

Archetypes and Entropy: Theory-Driven Extraction of Evidence for Suicide Risk | CLPsych 2024

Novel approach to classifying suicide risk in patients using psychologically motivated constructs and archetypes

Document Classification of Files on the Client Side Before Upload | Patent Inventor

- Co-invented with Dimitri Bilenkin in December 2019 under USPTO IDF07015, reference #4375.1650000
- Method for client browser to classify documents before they are sent to the server
- Implemented with Typescript, Tensorflow, and Angular.JS

Distance Points Interactive Interface and Related Methods | Patent Inventor

- Co-invented with Brian Lin in January 2020, pending under U.S. Application Number 17/156,823
- Methods for presenting credit card rewards miles in an interactive user interface
- Implemented in React.JS with python web-scraping backend