Swanie Juhng

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swaniejuhng.github.io

EDUCATION

Stony Brook, NY **Stony Brook University** **Aug 2020 – Expected May 2025**

- Ph.D. Candidate in Computer Science. Research Area: NLP + Psychology. CGPA: 3.87/4.0

Seoul, Korea **Sogang University** **Mar 2015 – Feb 2020**

- B.S. in Business Administration and Computer Science. CGPA: 3.34/4.0

EMPLOYMENT AND EXPERIENCE

Research Assistant **Stony Brook University** **May 2021 – Ongoing**

- Currently building a Transformer architecture that leverages time series data to predict binary level of depression and anxiety.
- Built generative language models that produce texts conditioned on Big Five personality traits and mental health variables; in the process of writing manuscript.

IITP-Purdue Software Program **Purdue University** **Jun 2018 – Aug 2018**

- Was selected as the participant of a 7-week summer software program and funded by IITP (South Korea government institution).

PUBLICATIONS

Discourse-Level Representations can Improve Prediction of Degree of Anxiety. ACL 2023.

- Built a novel neural network architecture that utilizes discourse-level and contextual embeddings of the Facebook status updates to predict the users' degree of anxiety.
- Explored theoretically relevant discourse relations to explain what the model is able to capture.

Transfer and Active Learning for Dissonance Detection: Addressing the Rare-Class Challenge. ACL 2023.

- Used and compared different active learning strategies to build a dataset for cognitive dissonance classification task.
- Examined the usefulness of transfer learning in addressing the rare-class problem when training a RoBERTa-based classifier.

PROJECTS

Gender and Mental Health. Big Data Analytics, 2022.

- Used language-based mental health prediction models on the County Tweet Lexical Bank dataset to find the correlations between mental health, gender, and population density.

World Happiness & Alochol Consumption. Visualization, 2021.

- Built an interactive dashboard that visualizes correlation between variables with respect to happiness and alcohol consumption.

Document-Level Sentiment Analysis. Natural Language Processing, 2020.

- Explored several methods built on the DistilBERT-based classifier to predict an author's sentiment towards a main entity in an article.

Waggle Power Management System. IITP-Purdue, 2018.

- Constructed an autonomous power management system using socket programming and Raspberry Pi to enable Waggle (wireless sensor platform) survive in rural environments.

KEY SKILLS

Languages Python; C/C++; Java; JavaScript; Shell; LaTeX
Tools PyTorch; TensorFlow; MySQL; Hadoop; Spark; D3.js

EXTRACURRICULAR ACTIVITIES

President **Korean Graduate Student Assn** **May 2022 – Ongoing**

- Organized events and managed social media account to foster interaction between students.
- Provided help to incoming Korean students settling down in a new environment.