

# Swanie Juhng

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## Education

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<b>Stony Brook, NY</b>	<b>Stony Brook University</b>	<b>Aug 2020 – Expected 2025</b>
<ul style="list-style-type: none"><li>• Ph.D. Candidate in Computer Science. CGPA: 3.87/4.0</li></ul>		
<b>Seoul, Korea</b>	<b>Sogang University</b>	<b>Mar 2015 – Feb 2020</b>
<ul style="list-style-type: none"><li>• B.S. in Business Administration and Computer Science.</li></ul>		

## Employment and Experience

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<b>Research Assistant</b>	<b>Stony Brook University</b>	<b>May 2021 – Ongoing</b>
<ul style="list-style-type: none"><li>• Built a novel neural network architecture that utilizes discourse-level and contextual embeddings to predict the Facebook users' level of anxiety based on their status updates; submitted the paper to EMNLP 2022.</li><li>• Built dataset to gain a better understanding of cognitive dissonance using discourse parsing and active learning; trained RoBERTa-based classification model.</li><li>• Built generative language models that generate texts conditioned on Big Five personality traits and mental health variables such as depression, anxiety, and life satisfaction; submitted the paper to PNAS.</li></ul>		
<b>Teaching Assistant</b>	<b>Stony Brook University</b>	<b>Aug 2020 – May 2021</b>
<ul style="list-style-type: none"><li>• CSE 320 System Fundamentals II (Spring 2021): Held office hours twice a week to help students complete five assignments; wrote a grading program using Criterion to check validity of submitted assignments.</li><li>• CSE 260 Computer Science B: Honors (Fall 2020): Helped students understand the basics of data structures and algorithms by explaining how to solve given problems in Java.</li></ul>		
<b>Programming Tutor</b>	<b>Sogang University</b>	<b>Sep 2017 – Dec 2019</b>
<ul style="list-style-type: none"><li>• COR 1009 Computational Thinking (Fall 2017 - Fall 2019): Helped students understand the basics of programming and learn Python grammar.</li></ul>		
<b>IITP-Purdue Software Program</b>	<b>Purdue University</b>	<b>Jun 2018 - Aug 2018</b>
<ul style="list-style-type: none"><li>• Selected as a participant of a 7-week summer software program and funded by the Institute of Information &amp; Communications Technology Planning &amp; Evaluation.</li><li>• Built an autonomous power management system with assistance of professors from CNIT department.</li></ul>		
<b>Social Entrepreneurship Workshop</b>	<b>Loyola Marymount University</b>	<b>Jan 2016</b>
<ul style="list-style-type: none"><li>• Designed a social business model involving upcycling.</li><li>• Attended seminars on Social Entrepreneurship; visited social enterprises and companies that engage in Corporate Social Responsibility.</li></ul>		

## Technical Experience

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### Projects

- **Visualization of World Happiness & Alcohol Consumption** (2021). Merged two datasets and built an interactive dashboard that visualizes correlations between happiness variables and metrics of alcohol consumption.
- **Document-Level Sentiment Analysis** (2020). Explored several methods built on the DistilBERT classifier to predict an author's sentiment of a main entity in an article.
- **Adult Dataset Classification** (2020). Used three classification methods to reveal if personal background has control over income; evaluated the strengths and weaknesses of the methods.
- **Waggle Power Management System** (2018). Construct an autonomous power management system to enable Waggle (a wireless sensor platform) to survive in non-urban environments with insufficient network and electricity support, using socket programming and Raspberry Pi.

## Key Skills

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