

# TAEHUN (BRIAN) LEE

Ann Arbor, Michigan | +1 734-596-7805 | [lth7234@gmail.com](mailto:lth7234@gmail.com) | <https://www.linkedin.com/in/taehunlee-cs-umich/>

## EDUCATION

### University of Michigan

Ann Arbor, Michigan

Double-Major in Computer Science and Statistics, Minor in Mathematics

Expected April 2025

- **Relevant Courses:** Data Structures & Algorithms, Foundations of Computing, Discrete Math, Differential Equations, Linear Algebra, Multivariable & Vector Calculus, Statistical Computing, Probability Theory

## PROFESSIONAL EXPERIENCE

### MotorCity Casino Hotel

Detroit, Michigan

Software Engineer Intern (MDP)

Jan 2024 - Current

- Developed an AI model using OpenAI API and Python, analyzing gaming data to create personalized offers, enhancing customer engagement and marketing efficiency.
- Architected a full-system prototype integrating the AI model with a database and user interface, automating marketing processes and optimizing customer management.
- Pioneered the implementation of an automated email system, aligning with the Casino Marketing Department's standards to streamline high-touch marketing strategies.
- Led user interviews and conducted extensive research on client engagement tracking, contributing to the improvement of business process understanding and client data utilization.

### AiCloud

Pohang, South Korea

Machine Learning Researcher Intern

May 2023 – August 2023

- Led research initiative on the development of two RNN-based machine learning models for drug discovery, utilizing Python and R to explore process efficiency improvements, indirectly contributing to a significant pharmaceutical investment.
- Facilitated multidisciplinary collaborations among government, academia, and healthcare sectors, focusing on scientific literature analysis to enhance the theoretical and conceptual foundations of drug discovery models, pivotal in securing a \$50 million grant.
- Conducted in-depth research on integrating NLP and transfer learning into the drug discovery pipeline, significantly advancing the field's innovation and model effectiveness.

### Korean Army

Gyeonggi-do, South Korea

Sergeant, Squad Leader

August 2020 – February 2022

- Managed inventory logistics for \$200 million worth of ammunition, ensuring optimal supply distribution and readiness.
- Led a 9-member team in military drills and operations, earning the Outstanding Soldier award for significant contributions.
- Initiated and conducted English language training for fellow soldiers, enhancing team communication and post-military career opportunities.

## PROJECTS & OUTSIDE EXPERIENCE

### Sarcasm News Headline Detector

January 2023 -- April 2023

- Led a student team to achieve 78% accuracy in classifying news headlines (Python ML project).
- Processed a 2,500-headline dataset using NLP techniques, collaborating efficiently through milestones and code reviews.
- Presented project outcomes, highlighting proficiency in Python, data processing, ML, and teamwork to faculty and professionals.

### Discussion Board Post Categorization AI

March 2023 -- April 2023

- Created an intelligent program focused on automating the categorization of discussion board posts into distinct topics by leveraging artificial intelligence and natural language processing (NLP) technologies, emulating human comprehension of post content.
- Implemented a machine learning methodology to autonomously discern word-topic relationships from historical posts, eliminating the need for manual curation of word lists.

### Computer Vision Project

March 2023 -- March 2023

- Engineered an image resizing program using a seam-carving algorithm in C++.
- Applied exceptional algorithmic skills to crop empty spaces from images, optimizing content.
- Advanced knowledge in C-style pointers, arrays, and structs, while enhancing debugging and testing capabilities.

## Technical SKILLS

**Programming Languages:** C/C++, Python, R, Java, JavaScript, HTML, CSS, Flutter

**Technologies:** Linux, Git, Pandas, Numpy, Tensorflow, SQL