# Ha Le

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## EDUCATION

**BSc. Honours Computer Science and Mathematics**                    Saint Peter, MN | Jun 2022
Gustavus Adolphus College

- (CS major) GPA: 4.00
- (Mathematics major) GPA: 3.93
- Advisor: San Skulrattanakulchai

## RESEARCH

**UNDERGRADUATE RESEARCH STUDENTS** | Computer Science          Gustauvus Adolphus College |

- Advisor: Louis Yu
- Look at potential factors that can contribute to the popularity of streamers, including their initial profile and streaming activities on Twitch.tv. Build a predictive model to forecast the growth of channels, and devise a schematic strategy to attract followers.
- Results can be read here: paper | presentation

**UNDERGRADUATE RESEARCH STUDENTS** | Mathematics          Gustavus Adolphus College |

- Advisor: Jacob Siehler
- Use an adapted version of Conway's pagoda function and deduction techniques to address the Port-and-Sweep Solitaire version equivalent of the solitaire army problem in one dimension, and conclusively prove that no army can advanced more than 9 cells beyond the line.
- Results can be read here: paper

## TEACHING EXPERIENCES

**MCS DEPARTMENT** | Computer Science Teaching Assistant          Saint Peter, MN | Jan 2019 - now

- Assist professors during lectures and lab sections, provide help for students during night tutoring sessions, as well as be in charge of project and homework grading.
- List of courses taught:
    - MCS-177 & MCS-178: Introduction to Computer Science (I) & (II)
    - MCS-287: Principles of Programming Languages
    - MCS-284: Computer Organization

**MCS DEPARTMENT** | Calculus Night Tutor          Saint Peter, MN | Jan 2019 - now

- Provide help and homework recommendation for students during night tutoring sessions.
- List of courses taught:
    - MCS-119: Pre-Calculus
    - MCS-121 & MCS-122: Calculus I & II
    - MCS-222: Multivariables Calculus

## WORK EXPERIENCES

**FPT SOFTWARE** | Data Engineer Intern          Hanoi, VN | May 2022 – Jul 2022

- Designed and implemented a algorithmic trading algorithm that can effectively recommend profitable stock codes in Vietnamese trading market. The process involves crawling data from the stock market from past 10 year (2010-2020), researching workable indicator and doing sentiment analysis on newspaper's pieces.
- The final model uses Deep-Q Neural Network implementation from tensorflow library and it can predict relatively well selling, buying and holding time for blue-chips stocks.

**RENESAS ELECTRONICS** | Data Scientist Intern                Hanoi, VN | Jul 2022 – Sep 2022

- Given the user manual of a particular Renesas' microcontrollers in pdf format, extract and calculate the internal structure, including information about the interfaces, registers and base addresses.
- Build an IP-XACT format generator that can convert the information of a microcontroller from a xlxs file to a xml file in IP-XACT format.

## ACTIVITIES

**NOBEL CONFERENCE 57: DATA SCIENCE** | Student Host           Saint Peter, MN | Feb 2021 - Oct 2021

- Take part in the organization and promotion of the Nobel Conference 2021.
- Work with Professor Francessa Dominici during her stay at Gustavus, including preparing her schedule and promote her research and publication.

**GUSTAVUS CODING CLUB** | Founding Member                     Saint Peter, MN | Dec 2018

- One of the first six members of the first coding club in Gustavus.
- Participate in the organization of several activities such as: coding competition, ICPC, Nobel Conference, ...

## SKILLS

**Languages:** Python, SQL, Kotlin, C++, LaTex
**Frameworks:** Pandas, Numpy, Tensorflow, PySpark, Camelot
**Courseworks:** Algorithms, Complex Analysis, Real Analysis, Applied Statistics, Programming Languages, Compliers, Scientific Computing, Abstract Algebra
**Additional Coursework:** Data Mining, Machine Learning, Reinforcement Learning (Coursera)