Ha Le

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EDUCATION BACKGROUND

Rice University   **Houston, Texas**
PhD Computer Science, Machine Learning   *Sept. 2022 - 2027*
Advisor: Prof. Arlei Silva

Gustavus Adolphus College   **Saint Peter, Minnesota**
BSc., Computer Science and Mathematics   *Sept. 2018-Jun. 2022*
GPA: 3.9/4.0

RESEARCH EXPERIENCE

One-dimensional Port-and-Sweep Solitaire Armies   **Saint Peter, Minnesota**
Supported by Gustavus Adolphus College   *Jun. 2020- Oct. 2020*

- 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.

A study on Channel Popularity in Twitch   **Saint Peter, Minnesota**
Supported by Gustavus Adolphus College   *Jun. 2021- Sept.2021*

- Advisor: Louis Yu
- Identify the group of successful streamers on Twitch.tv and deduce potential factors that can contribute to the popularity of streamers, including their initial profile and streaming activities. Build a predictive model to forecast the growth of channels, and devise a schematic strategy to attract followers.

Independent Research   **Saint Peter, Minnesota**
Supported by Gustavus Adolphus College   *Spring 2022*

- Advisor: Jillian Downey
- Investigating student buy-in on the new standard-based grading method for Calculus courses employed by Gustavus faculty. Examining the relationship between the efficacy of this method using variables such as: office hours usage, timing of retesting, ...

TEACHING EXPERIENCE

Computer Science Teaching Assistant   **Saint Peter, Minnesota**
Gustavus Adolphus College   *Jan. 2020 - now*

- Courses: MCS-177, MCS-178 (Intro to Computer Science I&II), MCS-287 (Principles of Programming Languages), MCS-284 (Computer Organization)

Mathematics Tutor   **Saint Peter, Minnesota**
Gustavus Adolphus College   *Sept. 2019 - now*

- Courses: MCS-199, MCS-121, MCS-122, MCS-150

PROFESSIONAL EXPERIENCE

FPT Software   **Hanoi, Vietnam**
Data Engineer Intern   *May 2021-Jul. 2021*

- 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 tensortrade library and it can predict the selling, buying and holding time for blue-chips stocks relatively accurate.

Renesas Electronics   **Tokyo, Japan**
Data Scientist Intern   *Jul. 2021-Sept. 2021*

- 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.

PUBLICATIONS, POSTERS AND PRESENTATIONS

- Filip Belik, **Ha Le**, Jacob Siehler. "One-dimensional Port-and-Sweep Solitaire Armies", presented at Gustavus Fall Research Symposium 2020. [*paper*]
- **Ha Le**, Junming Wu, Louis Yu. "A study on Channel Popularity in Twitch". Midstates Consortium's Physical Sciences, Mathematics and Computer Science Symposium 2021. [*poster*]
- **Ha Le**, Junming Wu, Louis Yu, Melissa Lynn. "A study on Channel Popularity in Twitch", arXiv:2111.05939v1 [cs], Oct. 2021 [*paper*]

SKILLS

- **Languages:** Python, SQL, R, Kotlin, C++, Java, MatLab, LaTex
- **Frameworks:** Pandas, Numpy, Scikit-learn, Tensorflow, Spacy, PySpark, NLTK
- **Courseworks:** Algorithms, Complex Analysis, Real Analysis, Applied Statistics,Programming Languages, Compilers, Scientific Computing, Abstract Algebra, Intro to Machine Learning, Android App Development.
- **Certifications:** AZ-900: Microsoft Azure Fundamentals, DP-900: Microsoft Azure Data Fundamentals.

SERVICES AND ACTIVITIES

Member   **Saint Peter, Minnesota**
Gustavus Coding Club   *Dec. 2019 - now*

Student Host   **Saint Peter, Minnesota**
Nobel Conference 57: Data Science   *Feb. 2021 - Oct. 2021*

AWARDS & GRANTS

- Jeff Roseoff Fund for undergraduate summer research ($2000)   *Jun. 2021*
- Stephen Hilding Fund for undergraduate summer research ($3000)   *Jun. 2020*
- Count Folke Bernadotte International Student Scholarship ($120 000)   *Aug. 2018*