

# Khoa Tonthat

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## EDUCATION

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### University of Minnesota-Twin Cities

*Bachelor of Computer Science, Cumulative GPA: 3.7/4.0*

Minneapolis, MN

*Aug. 2021 – Expected: Dec. 2023*

### Relevant Coursework

*Algorithms & Data Structures | Software Engineering | Program Design & Principles*

## PROJECTS

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### BetterGPT

September 2023 – Present

- Developed a full-stack application using Flask, TailWindCSS, and React to enable users to upload various file types that can be interpreted by GPT-3.
- Implemented the backend functionalities in **Flask** to handle file uploads and text interpretation via the **OpenAi** GPT API.
- Designed and created a user-friendly frontend using **React** and **TailwindCSS**
- Integrated **OpenAi** Whisper model to allow interpretation of youtube videos, along with any MP3 file.

### Drone Uber Eats Simulation.

March 2023 – May 2023

- Supervised and led the team as the scrum master in an **Agile** environment. Provided ideas for problems and delegated tasks to ensure that the project was completed on time.
- Implemented a data collection system on an existing **Java** code base with fundamental design principles and patterns to gather real-time information on order details and status.
- Effectively applied development processes including version control, code reviews, documentation, and software testing.
- Presented the implementation through a YouTube video that was able to impress the product owners and receive excellent feedback.

### Stock Market Forecasting

November 2022 – December 2022

- Designed a Long Short-Term Memory model in Python with core **deep learning** and **machine learning** principles to solve a time series regression problem.
- Extracted close prices of stock prices using yfinance, utilizing Panda, Numpy, and SciKit frameworks to transform the data into input accepted by the model
- Developed a LSTM model with **TensorFlow** frameworks. Plotted and analyzed predictions with **Matplotlib** functions.
- Able to predict tomorrows closing price of all stocks in the SP 500 with a price **94%+ accurate** to the closing price.

### Game-Hub

October 2021 – December 2021

- Built an application in Java to simulate a game-hub of related games with focus on **object-oriented programming principles** and engineering best practices to easily add more games.
- Implemented a system to track and present the wins and losses of each game separately in a menu

## TECHNICAL SKILLS

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**Languages:** Python, Java, C++, Solidity, SQL, C, Javascript

**Frameworks / Libraries :** Truffle, Node.js, Web3.js, Tensorflow, Keras, Pandas, Numpy

**Developer Tools:** Spark, Map-reduce, Git, Remix, React, VS Code, Visual Studio, PyCharm, IntelliJ, PostgreSQL

**Development Strategies:** Agile, Scrum, Waterfall

## EXPERIENCE

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### Teaching Assistant (TA)

September 2023 – December 2023

*University of Minnesota*

*Minneapolis, MN*

- Led weekly labs, code-reviewed, and provided feedback for Java programs.
- Supported overall 100+ students in Object-oriented Programming
- Collaborated closely with a team of TAs and instructors to navigate and solve related problems.
- Created a welcoming and encouraging environment along with facilitating discussions among students.