Aot Chanthorn

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EDUCATION

University of California, Berkeley

Bachelor of Arts in Mathematics, Focus in Operations Research

August 2024

Relevant Coursework: Probability, Data Structures, Abstract Linear, Linear Programming and Network Flows, Methods of Manufacturing Improvement, Discrete Math

WORK EXPERIENCE

Math Instructor

June 2023 – August 2024

Expected Graduation: May 2026

Mathnasium

La Canada, CA

- Collaborated with parents to determine student needs and documented progress to streamline learning
- Provided feedback to students using positive reinforcement techniques to encourage and build confidence
- Student outcomes resulted in a 20–60% positive grade shift

Distributor/ Representative

July 2022 – August 2024

Long Beach, CA

- Distributed discount or free internet service devices to qualified individuals
- Streamlined process resulting in a 50% increase in processing speed
- Communicated with ACP office to fast-track individual applications
- Resolved 40+ in-person customer inquiries per shift

PROJECTS

Sano Health

Custom Game Engine $\mid C++, SDL$

Present

- Designed and developed game engine focusing on rendering, physics simulation, and real-time input handling
- Implemented core engine features such as resource management, scene graph organization, and collision detection, optimizing performance for 2D games
- Delivered a flexible, modular architecture to enable easy integration of game-specific components and custom user classes

Custom Trading Backtesting Engine | C++, Python

Present

- Developed a custom backtesting engine in Python to simulate and evaluate trading strategies across historical market data
- Implemented key features such as portfolio management, risk assessment, and performance metrics to validate strategy effectiveness
- Compiled the data and results with an interactive dashboard

Guppy Ai speech trainer | Python, Whisper, OpenAi API, Flask

2024

- Developed a full web-application that listens and evaluates speech
- Leveraged python libraries to handle speech input and speech/audio processing
- Collaborated with a team of three with version control utilizing git-hub
- Collaborated with Minecraft server administrators to suggest features and get feedback about the plugin

Evolution N.E.A.T simulator $\mid C++, SFML$

2024

- Developed a desktop application using SFML to simulate evolution cells
- Implemented Neural evolutionary augmented topology ai algorithm
- Visualized the cells using a graphic interface

TECHNICAL SKILLS

Languages: Python, C++, Java, SQL, HTML, CSS, JavaScript

Frameworks: React, Flask

Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ **Libraries**: pandas, NumPy, Matplotlib, SDL, SFML, CMake