# **TAREQ ALYOUSEF**

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# WORK EXPERIENCE

#### WOLVERINE TRADING

Software Engineer Intern

- May 2022 August 2022 • Worked on a team responsible for maintaining firm-wide core infrastructure and system monitoring applications
- Created a time and memory sensitive, real-time burst detection application, diagnosing packet loss of market data
- Provided operators with insights on misconfigurations and oversubscriptions of data on various servers
- Demonstrated ability with modern C++, low-level systems, and high-performance computing

## AMAZON

Software Engineer Intern

- Worked on an AWS team responsible for providing core distributed computing algorithms to various services
- Created a data visualization tool for hosts of a multi-agent system in a full-stack environment
- Presented insights from dozens of data sources into a single dashboard, improving team productivity
- Demonstrated ability with ReactJS, Redux, NodeJS, GraphQL, and Java

#### **ID TECH CAMPS**

**Private Instructor** 

- Memphis, TN May 2021 - August 2021
- Taught game design with Unity3d/C# and 3D modeling with Blender as a private instructor
- Demonstrated ability to break down complex topics to an inexperienced audience

# **STRENGTHS**

Languages: C++, C#, Java, Python, HTML/CSS/JS, GraphQL Frameworks: Ruby on Rails, ReactJS, NodeJS, NextJS, WPF Databases: MySQL, PostgreSQL Software: Unity3d, Blender, GIMP **Development**: Git, Unix-like environments

# PERSONAL PROJECTS AND ACTIVITIES

# **BACKTESTING CLI**

- Designed a multithreaded, command line application for testing algorithmic trading strategies using C++
- Backtests provide detailed metrics, such as the CAGR, Sharpe, Sortino, Calmar, and drawdowns
- Used AlphaVantage for data collection and Doxygen for documentation

# ALGORITHMIC TRADING

- Deployed algorithmic trading strategies to Alpaca using C#
- Successfully traded a parameterless algorithm using OECD data with 25% CAGR and >2 Sharpe ratio

#### **MULTIPLAYER GAME**

- Designed a server-authoritative, competitive, multiplayer platformer using Unity3d and C#
- Modeled, textured, and animated entities with Blender and GIMP
- Implemented complete client-side prediction and server-side reconciliation •

#### FTC ROBOTICS

- Designed a series of autonomous and driver-controlled robots using Java
- Lead a programming team that won 1<sup>st</sup> place at a regional tournament

# **EDUCATION**

#### **UNIVERSITY OF MEMPHIS (HONORS COLLEGE)**

- B.S. in Computer Science
- Minor in Mathematics
- Concentration in Data Science
- Cumulative GPA: 3.94/4.00

December 2020

March 2020 – Present

June 2016 - Present

August 2016 – May 2019

August 2019 – May 2023

Seattle, WA

Chicago, IL

January 2022 – April 2022