

Tristen Allgaier

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EDUCATION

Northwestern University, Evanston, IL

Anticipated June 2023

Master of Science in **Computer Science** | Bachelor of Arts in **Economics**

Cumulative GPA: **3.99/4.00**

Relevant Courses: Multivariable Calculus, Linear Algebra, Machine Learning, Probability and Statistics, Econometrics, Data Structures and Algorithms, Operating Systems

RELEVANT EXPERIENCE

Software Engineer Intern | Amazon Web Services, Seattle, WA

June - September 2022

- Streamlined the process of performing operational tasks on a Paxos-based distributed lock management database by building a service which allows users to stop-start and swap hosts with the press of a button
- Set up GraphQL schema, backend functionality and user interface for a tool which allows database managers to efficiently query and inspect active workflows on database clusters with between 9 and 21 hosts
- Incorporated other developers' ideas into a workflow management tool by performing a demonstration and synthesizing feedback into suitable additions to the design

Software Engineer Intern | RealTime Sports, Brookline, MA

June - July 2021

- Built an interface allowing clients to efficiently query and manipulate sports venue data using Firebase
- Designed custom data types to convert over 30 JSX files to TSX files
- Tracked progress of an 8-person developer team using Jira

Mobile Application Developer | Self-Employed

July 2019 - March 2020

- Developed, tested, and published mobile game TapBlock Original on the App Store and Play Store
- Built frontend app components such as blocks and obstacles using React Native JavaScript framework
- Constructed backend with Redux to store users' scores, tiers, and unlockable game content

Research Assistant | Ideal Option, Pasco, WA

August - September 2019

- Performed and published case series on long-term buprenorphine treatment for kratom use disorder
- Extracted relevant patient data from an eClinicalWorks medical record database of 25,000+ patients and synthesized it in Excel spreadsheets

PROJECTS

Image Classifier

August 2020

- Implemented a neural network in Python to determine dog breed using the PyTorch library
- Designed convolutional layers for feature extraction on images of dogs

Trading Strategy Evaluation

November 2019 - March 2020

- Researched currency trading strategies that are typically executed manually and implemented algorithms to automatically execute them in MQL4
- Evaluated strategy profitability by backtesting on past exchange rates

LEADERSHIP

Peer Mentor | Northwestern University

March - June 2021

- Collaborated with a team of 13 peer mentors to identify common areas of knowledge gaps across course sections
- Lead biweekly office hours to help students understand data structures such as trees, graphs and hash tables

Sensei | Trinity Martial Arts Academy

September 2011 - June 2018

- Acquired black belt in classical Okinawan Karate by passing a series of exams
- Organized supplementary teaching sessions to help students improve techniques

ADDITIONAL

Computer: Experienced in Python, JavaScript, C, C++, Java, React, Redux, Firebase, GraphQL, SQL and Excel

Interests: Weightlifting, Guitar, Herping, Wakesurfing, Poker, Brazilian Jiu-jitsu