

Katherine Shen

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github.com/shenkw1

(443) 766-2382

EDUCATION

Georgia Institute of Technology

Bachelors of Science in Computer Science

Atlanta, GA

Aug. 2020 – May 2024

Concentration: Graphics & Information Internetworks

Courses: *Algorithm Design, Computer Graphics, Computer Architecture, Applied Combinatorics, Objects & Design, Discrete Mathematics, Data Structures & Algorithms, Object-Oriented Programming, Linear Algebra*

River Hill High School

High School Diploma (Rank 5/298)

Clarksville, MD

Sep. 2016 – May 2020

EXPERIENCE

Georgia Tech Research Institute

Research Assistant

Atlanta, GA

Aug. 2022 – Dec. 2022

Georgia Tech Research Institute

Research Software Engineering Intern

Atlanta, GA

May 2022 – Jul. 2022

- Assisted users in identifying issues and adjusting machine algorithms efficiently by developing an error analysis visualization tool for machine learning models using React, Flask, and Pandas
- Designed and implemented data architecture to allow the tool to communicate seamlessly with the database

Johns Hopkins University Applied Physics Lab

Software Engineering Intern

Laurel, MD

Jun. 2018 – Jun. 2020

- Reduced average time for locating parking spot on APL campus with OpenCV and image recognition
- Dispatched analyzed parking spot data to drivers gathered through mobile app
- Experimented with relationships between emotional context and television subtitles using NLP techniques
- Developed lost device tracking system with Raspberry Pi by building Pseudo-GPS system with WiFi networks

EXTRACURRICULARS

GT Esports

Vice President, Head of Creative Department, Treasurer

Atlanta, GA

Sept. 2020 – Present

- Restructured organization by interviewing/onboarding new staff and creating new procedures
- Boosted and promoted member engagement by implementing policies to increase member participation
- Managed creative team of 7 creating website, social media, and game-specific designs
- Integrated creative department into game sub-organizations to produce ad-hoc graphics for large events
- Managed budget and allocated funds for competitive teams, various events, and organization costs

PROJECTS

Martian Defense 3000 | *Java, JavaFX, JUnit, Figma*

Sept. 2021

- Created a space themed tower defense game with 4 other classmates
- Designed and implemented multiple game screens and sprites
- Wrote a variety of JUnit tests to test correct functionality of the game

gamelettr | *Python, Websockets, Event Handling, REST APIs*

Jul. 2021

- Provided quick tournament lookup information for regional and global events through Discord bot
- Consumed Riot Games Esports API to get accurate, live tournament information
- Utilized formatting algorithms with data structures to display information sent to Discord using `discord.py`
- Developed a scheduler to deliver notifications with a stream link for upcoming matches for ease of viewing

Energy Consumption Analysis (2020 HackGT 7) | *Dash, Plotly.js, Pandas, numpy*

Oct. 2020

- Contributed to a decision tree anomaly detection model built to detect energy usage anomalies
- Visualized data output by from decision tree using Plotly graphs and a Dash app

SKILLS SUMMARY

Languages: Python, Java, JavaScript, HTML/CSS, \LaTeX
Tools: Figma, Notion, Trello, Git, Adobe Photoshop
Technologies: Websockets, API, Event Handling, React, Flask