Katherine Shen

katherineshen@gatech.edu

github.com/shenkw1

(443) 766-2382

EDUCATION

Georgia Institute of Technology   Atlanta, GA
Bachelors of Science in Computer Science   *Aug 2020 – May 2024*

Concentration: Graphics & Information Internetworks

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

EXPERIENCE

Georgia Tech Research Institute   Atlanta, GA
Research Assistant   *Aug 2022 – Present*

Georgia Tech Research Institute   Atlanta, GA
Research Software Engineering Intern   *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   Laurel, MD
Software Engineering Intern   *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   Atlanta, GA
Vice President, Head of Creative Department, Treasurer   *Sep 2020 – Present*

○ Restructured organization by interiewing/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*

○ 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*

○ 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*

○ 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

Programming:	Python, Java, JavaScript, HTML/CSS, C, LaTeX, Assembly (LC-3)
Tools:	Figma, Notion, Trello, Git, Adobe Photoshop
Technologies:	Websockets, API, Event Handling, React, Flask
Languages:	English (native), Chinese (fluent)