UNIVERSITY OF LOUISVILLE
J.B. SPEED SCHOOL OF ENGINEERING

Elijah Spicer

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OBJECTIVE

First Computer Science Internship Position — May 3rd – Aug 16th, 2023

EDUCATION

Bachelor of Arts in Computer Science — Expected May 2025
J.B. Speed School of Engineering, University of Louisville, Louisville, Kentucky — **GPA 4.0/4.0**
Responsible for 100% of tuition — Hours Completed: 83

SKILLS/COURSEWORK

Technical Skills/Relevant Coursework

- **Python Programming**
- C, **C++ Programming**
- ROS, **Linux Development**
- TensorFlow, Machine Learning
- **Calculus I-II**

***Fall 2022**

- **Discrete Structures**
- Data Structures and Algorithms
- Linear Algebra*
- Swift Programming
- Video Game Development

APPLIED EXPERIENCE

Course Projects:
C++ Created a 3D maze solving program which finds the shortest path to the exit.
C Created an address-book app that saves and load multiple address-books.
Python Created a text-based adventure game in a group of 4. Made a web-scraper and data visualizer.
Independent Projects:
Python Created a top-down zombie game that is found here https://github.com/EJ-S/zombie-run
Data Structures and Algorithms Use data structures and algorithms to solve competitive programming problems on https://open.kattis.com/. My solutions can be found here https://github.com/EJ-S/kattis
Python Made a Spotify app that gives artist recommendations
Robot Design and Programming Designed, built, tested, and programmed both remote controlled and autonomously controlled robots in High School and University
Computer Vision Used python and C++ libraries to assist on object recognition and computer vision in fully autonomous drones

WORK EXPERIENCE

Research Assistant Full Time — May 2022 – July 2022
Research Assistant Part Time — Feb 2022 – May 2022; July 2022 – Present
AIMS Lab, University of Louisville, J.B. Speed School of Engineering — Louisville, KY

- Used Machine Learning frameworks like TensorFlow to build, test, and evaluate neural networks
- Used Embedded Systems to evaluate computer vision systems
- Used python in a Linux development environment
- Developed a cooperative tracking algorithm for simulated drones in Unreal Engine
- Used scientific methods to build graphs and come to relevant conclusions
- Compiled and wrote findings, with others, in a research paper, research poster, and presentation

ACTIVITIES/HONORS

Member, **Redbird Robotics**, August 2021 – present
- Develop programs for autonomous drones using computer vision and ROS

Member, **International Collegiate Programming Competition**, December 2021 – present
- Use data structures and algorithms to solve well defined programming problems in a group setting

Member, **Association for Computer Machinery (ACM)** August 2022 – present
-Member, **ACM Game Development Group** January 2022 – August 2022
-Vice President, **ACM Game Development Group** September 2022 – present
-Develop a 2D top-down game in Godot using GDScript

President, **Vex Robotics**, August 2017 – May 2021
- Design, build, and program remote and autonomously controlled robots to compete in a game

Kentucky Governors Scholar 2020, Deans Scholar Fall 2021
Hobbies include making videogames, building computers, and solving puzzles and algorithm problems