Ryan Leigh

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EDUCATION

B.S. Computer Science (Cybersecurity), Physics Minor — Expected May 2025
Arizona State University, Tempe, AZ — 3.85 GPA
Barrett, The Honors College

TECHNICAL SKILLS

Programming Languages: Java, C/C++, JavaScript, Python, Scheme, Assembly, Kotlin
Front-End: HTML, CSS
Tools, Databases, and OS: Git Bash, Windows, Linux/Unix, ArcGIS, TensorFlow, PuTTy, VS Code, Eclipse, Dev C++, Docker

PROFESSIONAL EXPERIENCE

U.S. Geological Survey (USGS): Data Science Research Intern — Fall 2022 - Summer 2023
- Utilized Python notebooks, TensorFlow, and Google's Inception-v3 convolutional neural network to enhance our understanding of wildfire risk assessment.
- Analyzed various flora and brush types to assess their flammability levels. This analysis enabled us to model and predict the likelihood of wildfires in specific areas. The team successfully secured substantial funding after Open Geo-Consortium's approval of our project proposal.
- Furthermore, the team maximized the potential of open citizen science by integrating user-submitted image data and GPS coordinates into our neural network, bolstering the effectiveness of our wildfire risk assessment efforts.

RELEVANT PROJECTS

Data Dashboard, *ASU Motorsports - Formula SAE* — Fall 2023 - Present
- Developed a robust modular data analyzer for the FSAE team in Python and C++, enhancing the efficiency of data processing and analysis for performance optimization.
- Collaborated closely with team members to understand specific analytical needs, tailoring modules to address unique requirements for various subsystems through live data streaming, playback, and analysis.
- Recognized for the project's impact on streamlining the development process and improving the team's competitive edge.

JavaFX Chess, *Personal Project* — Spring 2023 - Summer 2023
- Developed a sophisticated chess application using JavaFX, showcasing a deep understanding of object-oriented programming principles. Leveraged key concepts including inheritance, polymorphism, abstraction, encapsulation, and data structures such as LinkedList to create an intuitive and engaging user experience.
- The JavaFX component of the application brilliantly employs a GridPane layout lined with a 2D array, meticulously designed to provide an aesthetically pleasing and highly functional chessboard interface.

Lead Programmer, *Chaparral Firebird Robotics* — Fall 2021-Spring 2022
- Programmed an autonomous and tele-operable robot in Java to compete in the 2022 FIRST Robotics Competition
- Intertwined proficiency in Java with graduate level robotics control theory such as PID and trajectory control
- Learned to work in a team-building atmosphere

EXTRACURRICULAR EXPERIENCE

NSA Codebreaker Challenge — Fall 2023 - Winter 2023
- Participant in the NSA Codebreaker Challenge which is a cybersecurity competition for college students across the nation. This challenge demonstrates skills in cryptography, reverse engineering, emulation, exploitation, and hardware analysis.
- 1 of only 6 students at my university to complete task 3.

VOLUNTEER EXPERIENCE

FIRST Robotics Competition Mentor/Alumni - *Chaparral High School* — Spring 2023 - Present
- Former student within the FIRST robotics program who now coaches and mentors high school students concerning programming. Leads students to make quality team decisions and lead in high-stress situations.

WORK EXPERIENCE

Lifeguard, *Morey's Piers* **- Wildwood, NJ** — Summer 2023
- Demonstrated exceptional water safety skills by proactively preventing accidents and ensuring a safe swimming environment. Completed Ellis and Associates Lifeguard Certification and was trained for deep water rescue.
- Demonstrated leadership, responsibility, accountability and cultivated a safe, friendly, and fun experience for guests. Made 15-20 saves over the course of the summer.

Ride Operator, *Morey's Piers* **- Wildwood, NJ** — Summer 2021
- Ensured the safety of riders by performing pre-ride safety checks and enforcing ride guidelines and procedures. Provided excellent customer service by assisting riders, answering questions, and resolving issues in a friendly and courteous manner.