

Shayan Ghafoori

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Education

University of Arizona

Tucson, AZ - GPA: 4.0

M.S. Information Science, Machine Learning

Jan 2024 - Present

- **Relevant Courses:** Machine Learning, Artificial Intelligence, Data Mining

University of California, Los Angeles (UCLA)

Los Angeles, CA - GPA: 3.3

B.S. Math of Computation (focus in Computer Science) - Statistics & Data Science minor

Sept 2019 - June 2023

- **Relevant Courses:** OOP in C++ I & II, OOP in Python, Computer Organization, Data Structures & Algorithms, Operating Systems, Programming Languages, Software Engineering, Optimization, Numerical Methods I & II, Mathematical Statistics, Computational Statistics, Machine Learning

Skills

Languages - C++, Python, JavaScript/Typescript, CSS/HTML, R

Technologies - React.js, Tailwind CSS, Selenium, NumPy

Tools & Platforms - Git, Docker, Linux/Bash, CMake, Jira, Azure

Experience

Raytheon Technologies

Tucson, AZ

Software Engineer

Oct 2023 – Present

- Work in an agile scrum environment, driving the design, development, and seamless integration of classified projects utilizing **Rust** and embedded programming in **C++** and **Python**
- Automated the training of an internal Retrieval Augmented Generation (RAD) Large Language Model (LLM) built on Falcon40B & Mistral, ultimately receiving an innovation award for accelerating development
- Engineered a Python tool that connects 55K+ engineers with relevant skills to new programs, significantly reducing resource overhead and enhancing project efficiency
- Implement CI/CD pipelines and Docker containers to streamline deployment processes
- Create unit tests for thorough testing of algorithms, latency, memory usage, real-time performance, and hardware interactions in embedded systems using the Google Test Framework

WagerWire (Sports Betting Startup)

Los Angeles, CA

Software Engineer & Data Analyst

June 2022 – Oct 2023

- For more details about my work at WagerWire, check out shayan-ghaf.com
- Worked as both a software engineer and data analyst developing a proprietary algorithm for valuing sports bets, concurrently collaborating closely with designers and product managers to create intuitive GUIs for public use
- Engineered, refined, and expanded bet pricing algorithm from a basic application to a sophisticated, multivariate system by leveraging analysis of 22 years of sports betting data **Python, R**
- Spearheaded complete overhaul and development of website using **Sanity.io, React.js, Typescript, and Tailwind CSS**, resulting in a ~1.8K% increase in average engagement time and 30K+ visits a month according to Google Analytics
 - Crafted website's calculator and graph pages, empowering users to assess and visualize bet value fluctuations
 - Developed community and home pages as go-to destinations for staying informed on all things WagerWire
- Acted as liaison between Data and Engineering teams, ensuring seamless integration of data-driven features

Projects

- For more details about each project, check out shayan-ghaf.com
- **Tesla Stock Predictor** - Predictive algorithm developed via a MLE approach to regression (considering Gaussian noise), z-score normalization, and recursive feature elimination with 10-fold cross-validation **Python, R**
- **BruinSports** - Website for UCLA students to post and RSVP for pickup games **MongoDB, Express, React.js, Node.js**
- **Goblin Frenzy** - Endless computer game where a ninja eliminates chasing goblins of increasing difficulty **Python**
- **Mini Rogue** - Video game adaptation of the Mini Rogue board game **C++**