

ZACHARY L SHINNICK

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[LinkedIn](#)

[GitHub](#)

[Portfolio Website](#)

Education

The University of Adelaide	Adelaide, Australia	Graduating November 2024
Bachelor of Computer Science (Advanced), GPA: 6.75 / 7		

Work Experience

Research Intern - Australian Institute of Machine Learning.	Nov 2022 – Feb 2023
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- Currently working on an open-source project involving computer vision, image processing, and multidimensional arrays under the supervision of Dr. Zygmunt Szpak for the Julia Images organisation.
- Developing a robust automatic checkerboard detection package for camera calibration using the Julia programming language.
- Working with multidimensional arrays to process and analyse data.
- Demonstrating problem-solving and critical thinking skills to overcome challenges and optimize the algorithm's performance, as well as proficiency in the Julia programming language and the ability to apply it to a real-world problem.

Projects

E Horses C++ (Link)	Sep 2022 – Oct 2022
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- Created an open-world horse racing game with a group of three, including player functionality like racing, buying, boosting, upgrading, and breeding horses, with the aim to level up and win races.
- Developed various in-game locations like stables, breeding grounds, a general store, a horse market, and a racetrack for player interaction.
- Utilized object-oriented principles and an agile approach for efficient and effective team collaboration.

NBA Optimal Player Body Type Data Visualiser Python (Link)	Aug 2022
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- Data visualisation project which was undertaken to answer the question “What is the optimal body type for an NBA player”.
- Analysed data from the NBA stat API for over 11,000 players dating back to 1996.
- Examined the correlation between player production and biological factors such as height, weight, and BMI.
- Created visualizations using seaborn and matplotlib to present findings.
- Determined the body type most likely to result in a successful NBA career.

Fit Mate Flutter (Link)	Dec 2022
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- Designed and developed a mobile application for IOS and Android to help users achieve their fitness goals.
- Implemented features such as personalised workout planning, meal tracking, and goal setting.
- Created a local database to store user data securely.
- Received positive user feedback for the app's intuitive design, animations and practical features.

Extra-Curricular

Competitive Programming Club: Vice President 2023
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- Organise and participate in various competitive programming competitions that focus on problem solving in a team. These events include Anzac rounds and ICPC Regionals.
- Assist in organization of industry events for club sponsors.

Additional Experience and Achievements

Summer Research Scholarship – I was awarded a summer research scholarship at the Australian Institute of Machine Learning to research into camera calibration and computer vision.

Languages

Proficient: C++, Julia	Experienced: Python, Flutter, JS, HTML, CSS, MATLAB
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