

# Andrew Doan

Santa Ana, California

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Result-driven programmer with experience in developing a diverse set of programs, covering concepts such as AI, video games, databases, and big data.

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## Work History

### Bakery Maintenance Assistant | Bakery | Costco Wholesale | 2019-2020

- Execute thorough sanitation protocols to guarantee a hygienic and safe bakery environment
- Manage displays to ensure an aesthetic presentation of products
- Collaborating with bakery staff to streamline the preparation process
- Operating and cleaning large and heavy bakery equipment, ensuring optimal functionality and longevity
- Taking part in fostering a collaborative work environment through communication with the staff and management

### IT Assistant - Instructional Technology Assistant | Ada Clegg Elementary | Westminster School District | 2021-2023

- Created and conducted technology-related activities and lessons of up to 30 people, integrating technologies to enhance the learning experience
- Administrated lesson-teaching and school management software and hardware to ensure an efficient learning environment
- Troubleshooting hardware equipment and software, such as robots, laptops, and educational software, and writing documentation on diagnosed or resolved issues to be recorded in automated processing systems
- Presenting to and collaborating with diverse age groups, from children to adults, to foster comprehensive lesson plans

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## Education

### Bachelor of Science in Computer Science

*California State University Fullerton* | GPA : 3.61 | January 2024

Courses: Software Architecture, Design, Engineering / AI and Machine Learning / Databases / Network Communications / Algorithm Engineering / Data Science / Operating Systems / Statistics / Cybersecurity

### Associates Degree in Computer Science

*Orange Coast Community College* | December 2020

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## Skills

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|---------------------------------|------------------------------------|
| ▪ C++ Proficiency Certification | ▪ Windows / Linux OS               |
| ▪ C#, Python, SQL, R, GDScript  | ▪ HTML / CSS                       |
| ▪ Technology Troubleshooting    | ▪ Responsive Web Dev Certification |

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## Software Projects | Found at : <https://github.com/Shmupo>

- Pacman
  - Retro pacman written from scratch in python using pygame library.
  - Ghost AI implemented using A\* search algorithm
  - Maze drawn using a grid of nodes that the player and ghosts navigate one

- Chess Predictive Parser
  - Written in C++ and contains a table that defines chess moves as a language for all complex pieces
  - Predicts the current available chess moves using predictive parsing
- Watered Down
  - Video game developed using godot 4, inspired by retro artillery games, written in gdscript and C#
  - Builds on top of the existing godot physics engine and implements water particles using smoothed-particle physics on separate threads from the main thread godot uses.
  - Uses a spatial hash grid to optimally retrieve neighboring particles
  - Uses C# thread pool to implement multithreading