

# Zachary Light

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## EXPERIENCE

### Software Engineer

Argon ST, a Boeing Company

June 2019 - Present, Mountain View, CA

- Write Code in Java and C++ to operate with radio-based communication systems.
- Works with systems for communication and signal processing.
- Conducts analysis through high speed computer and FPGAs in embedded systems.
- Designs and updates complex initramfs systems.

### Research Assistant

University of California, Merced

January 2019 - May 2019, Merced, CA

- Expanded the Working Memory toolkit, a reinforcement learning AI that aims to emulate human working memory.
- Utilized the toolkit to create a solution to the save, ignore, recall (SIR) problem.
- Created a Four Room task in order to generate the baseline for a hierarchy of working memory.

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## PROJECTS

### Brick-Breaker

August 2018 - August 2018

- Wrote a version of brick breaker using C++ and OpenGL (freeglut).
- Utilizes Object oriented concepts for easy optimization, and expand-ability.
- Uses GitHub for group collaboration and version control.

### Robotics-Maze (Treasure Hunt)

April 2018 - May 2018

- Developed an algorithm in C++ with ROS that scouts an entire maze, and finds all hidden treasures throughout it.
- Implemented collision avoidance and pathfinding techniques to enable the robot to navigate through the maze without hitting any walls.
- Used a Husky robot simulation as a GUI display of the robot and treasures.
- Used GitHub for group collaboration and version control.

### DouShouQi (Jungle)

- A rendition of the board game jungle done for HackMerced 2019.
- I led my team to complete this game in the 36 hour event.
- Utilizing object oriented concepts to create a dynamic, easily expandable game.
- Uses OpenGL to draw graphics, through freeglut for C++.
- Used github for group collaboration and version control.

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## SKILLS

C++, Java, Python, Shell, Git, C, MATLAB, Object-Oriented Programming

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## EDUCATION

### Bachelors of Science in Computer Science and Engineering

University of California, Merced • Merced, CA • 2019 • 3.2

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## COURSEWORK

Algorithm Design and Analysis, Data Structures, Software Engineering, Object Oriented Programming, Operating Systems, Computer Networks, Image Processing, Robotics, Artificial Intelligence, Computer Vision