Aaron S. Li

Computer Science @ UCSD | Aspiring Cybersecurity Engineer

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EDUCATION

- **UC SAN DIEGO (UCSD):** 2018 - Present
  - **B.S. in Computer Science** - **Academic GPA:** 3.5
- **COURSEWORK FOCUS:**

Math: - Statistical Methods - Honors Linear Algebra
- Calculus and Analytic Geometry for Science and Engineering

Computer Science:
- Mathematics for Algorithms and Systems - Discrete Mathematics
- Design and Analysis of Algorithms - Theory of Computability
- Programming Languages: Principles and Paradigms - Computer Organization and Systems Programming
- Components and Design Techniques for Digital Systems - Digital Systems Laboratory

PROFESSIONAL EXPERIENCE

VOLUNTEER INTERNSHIP (JUNE 2018 – AUG 2018): FutureWei Technologies, San Diego, CA
- ➢ Evaluate see-in-dark DL network for dark scene image processing
- ➢ Generate new datasets with a smartphone camera. re-train network
- ➢ Assemble DL workstation from parts; setup Linux/DL environment

PAID INTERNSHIP (June 2020 - September 2020): Genvira Biosciences Inc., Ottawa, Canada
- ➢ Build the company website
- ➢ Setup IT infrastructure
- ➢ Configure firewalls to protect the company's data
- ➢ Develop machine learning software from bio. database to predict tumor antigens for personalized tumor vaccine

AWARDS & HONORS

CYBERSECURITY
- ➢ **CyberPatriot National finalist (2018)**: 6th place among 3,500 registered high school teams
- ➢ **Receive all-expenses** to compete at the National Finals Competition at Baltimore, MD.

ROBOTICS
- ➢ **FIRST Tech Challenge** (2015 – 2017): San Diego regional **2nd place** in 60+ teams, **Control Award** winner

FUN PROJECTS

SORTING SIMULATION (2019):
- ➢ Java programs that compares and visualizes the speed of 14 sorting methods

BOID SIMULATION (2019):
- ➢ Java programs that simulates a flock of generic creatures such birds or fish
- ➢ Each individual boid follows some rules to create a flocking behavior
  - Separation: steer to avoid crowding local flockmates
  - Alignment: steer towards the average heading of local flockmates
  - Cohesion: steer to move towards the average position (center of mass) of local flockmates
- ➢ Attempts to avoid obstacles
- ➢ Often used in computer graphics, providing realistic-looking of flocks of birds and other creatures

FRACTAL GENERATION(2020):
- ➢ Java programs to generates the Mandelbrot set and the Julia sets images
- ➢ Arts produced by the mathematics

PYRAMID BASED IMAGE FUSION (2021):
- ➢ Generates Laplacian pyramids for two images, merges each layer, then reconstructs a merged image
- ➢ Interactive UI made using Qt
- ➢ Image input/output using OpenCV

SKILLS

PROGRAM LANGUAGE: Java, C, C++, Python, Haskell, Kotlin
OPERATING SYSTEM: Windows, Linux/Installed Arch Linux
LIBRARIES: LWJGL, OpenCV