Aaron S. Li

Software Engineer | Cybersecurity Engineer

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SUMMARY

CS Major, earning B.S. at UC-San Diego aspires to a career in software engineering, robotics, or cybersecurity. Want to apply skills and experience to fulfill employer's needs and continue to learn new knowledge.

EDUCATION

- **UC SAN DIEGO (UCSD):**
  - B.S., Computer Science **Expected:** December 2022 **GPA:** 3.3
- **COURSEWORK FOCUS:**

Math and Algorithm

- Honors Linear Algebra
- Theory of Computation
- Statistical Methods
- Discrete Mathematics
- Design & Analysis of Algorithms
- Mathematics/Algorithms & Systems analysis
- Calculus & Analytic Geometry for Science and Engineering

Software

- Software Engineering
- Design & Analysis of Algorithm
- Digital Systems Laboratory
- Computer Organization and Systems Programming
- Components and Design Techniques for Digital Systems
- Programming Languages: Principles and Paradigms

Special Topics

- Advanced data Structure
- Deep Learning
- Intro to Parallel Computing
- Computer Networks (in Progress)
- Intro to Computer Vision (I, II(in Progress))
- Web Mining and Recommender Systems
- Intro to Modern Cryptography (in Progress)

PROFESSIONAL EXPERIENCE

GENVIRA BIOSCIENCES INC., OTTAWA, CANADA (June 2020 - September 2020): **Paid Internship**

- Configured/Set up IT infrastructure and firewalls for this new startup company
- Designed/Built the company's website
- Developed machine learning software (Python) from a biological database to predict tumor antigens for personalized tumor vaccines, which are the company's featured products.

FUTUREWEI TECHNOLOGIES, SAN DIEGO, CA (June 2018 – August 2018): **Volunteer Internship**

- Evaluated see-in-dark DL network for dark scene image processing
- Generated new datasets with a smartphone camera; re-trained computational neural network
- Assembled DL workstation from parts; setup Linux/DL environment

PROJECTS

PYRAMID BASED IMAGE FUSION (2021):

- Generated Laplacian pyramids for two images, merged each layer, then reconstructed the merged images
- Created interactive UI with Qt; leveraged OpenCV for Image input/output

FRACTAL GENERATION (2020):

- Created original Java programs to generate the Mandelbrot and the Julia sets of fractal images

BOID SIMULATION (2019):

- Created original Java programs to simulate a flock of realistic generic creatures, such birds or fish
- Each individual boid follows certain rules to create a flocking behavior: separation, alignment, cohesion,

SORTING SIMULATION (2019):

- Created original Java programs to compare and visualize the speed of 14 sorting methods.

AWARDS & HONORS

CYBERSECURITY

- **CyberPatriot National Finalist (2018)**: 6th among 3,500 registered high school teams
- **Received all-expenses paid award** to compete at the National Finals Competition at Baltimore, MD.

ROBOTICS

- **FIRST Tech Challenge** (2015 – 2017): Regional **2nd place** of 60+ teams, **Team Captain**, **Control Award** winner

SKILLS

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