

# Anthony Tong

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## EDUCATION

**University of California, San Diego**

*B.S. Computer Science, B.S. Applied Mathematics | GPA: 4.0*

**La Jolla, CA**

*Class of 2027*

## HONORS & AWARDS

- Regents Scholarship @ University of California, San Diego (2023-2027)
- NSF Research Experiences for Undergraduates @ University of Nevada, Las Vegas (2024)

## RESEARCH

**GURU | Python, PyTorch**

**La Jolla, CA**

*AI Research w/ Prof. Garrison W. Cottrell*

*Apr 2025 - Present*

- Currently working on the SMART project: utilizing AI for molecule identification

**ESB.AI Lab | Python, OpenCV, Label Studio, PyTorch**

**La Jolla, CA**

*AI/Computer Vision Research w/ Prof. Edwin A. Solares*

*Oct 2023 - Apr 2025*

- Directed 4 groups consisting of over 15 people in total on various research projects
- *LLMs for Language Preservation*: developing Tesseract and LLM models for endangered languages, including Hawaiian and Sanskrit
- *A-Droids*: streamlining data collection for avocado tree phenotyping via autonomous drones
- *AvoVision*: training CV models for avocado tree identification and phenotyping
- *AbaloneVision*: training CV models for abalone sex classification and gonad segmentation
  - Pending publication on abalone sex determination

**AI SUSTAIN REU | Python, PyTorch**

**Remote | Las Vegas, NV**

*Visiting Researcher @ UNLV w/ Prof. Shengjie Zhai, Dr. Ming Zhu*

*Jun 2024 - Apr 2025*

- Studied vocabulary replacement in tokenization on LLM medical domain adaptation
- Demonstrated >5% improvement on GPT-2 PubMedQA benchmark

**Regents Scholars Research Initiative | Python, sklearn, cvxpy**

**La Jolla, CA**

*Machine Learning/AI Research w/ Prof. Arya Mazumdar*

*Sep 2023 - Jun 2024*

- Worked on a variety of research topics including nonlinear estimation, generative models, and the performance of model mismatch
- Conducted experiments to validate the effect of temperature on sample complexity in logistic regression
- Investigated quantization algorithms for generative models and staircase/hierarchical learning

## TEACHING

**CSE 151B: Deep Learning**

**La Jolla, CA**

*Prof. Qi (Rose) Yu | Head Tutor | SP25*

*Apr 2025 — Jun 2025*

**CSE 150A: Intro to AI: Prob. Reasoning and Decision Making**

**La Jolla, CA**

*Prof. Edwin A. Solares | Head Tutor | WI25*

*Jan 2025 — Mar 2025*

## OTHER EXPERIENCE

**Ridge Security Technology Inc. | Python**

**Remote | Fremont, CA**

*Returning Intern*

*Oct 2023 — Jan 2024*

- Developed 6 plugins which integrate exploit scripts into the RidgeBot software

*Summer Intern*

*Jun 2022 — Aug 2022*

- Investigated 2 critical Windows Active Directory CVEs and created proof-of-concept (PoC) scripts