William Jiahua Liang

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https://github.com/BitLorax

EDUCATION

University of Pennsylvania, School of Engineering & Applied Science   *August 2021 - May 2025*
Bachelors of Science in Engineering in Computer Science

Foothill High School   *August 2017 - May 2021*
Cumulative GPA: 4.42 / 4.0   *Standardized Tests: 36 ACT, 1590 SAT, 1510 PSAT*

Coursera
Stanford Machine Learning (March 2020), Deep Learning Specialization (May 2020) Certifications

EXPERIENCE

Developer at Penn Electric Racing   *September 2021 - present*
- Learned electrical components of REV 6 race car, embedded programming, and UNIX operating systems
- Revamp codebase for data collection, analysis, implausibility checks, and car functions with Rust

Summer Intern at Fungible, Inc.   *June 2021 - August 2021*
- Built end-to-end DPU log analysis system including collection, parsing, and UI for Integration team debugging
- Used ELK Stack (Elasticsearch, Logstash, Kibana) to retrieve and collect logs from multiple source machines
- Developed custom Ruby filter plugin for Logstash to parse logs for certain fields (ex: timestamp, error level)
- Developed Python functions to integrate Logstash and Elasticsearch into current job processing system
- Created Angular front-end for listing and filtering log events for each job

Student Researcher at University of California, Santa Barbara   *June 2020 - present*
- Researched evolutionary neural networks at UCSB Research Mentorship Program (RMP)
- Developed novel algorithm for training NN encoders to play Snake, presented results in paper and symposium
- Continued research with mentor after RMP, submitted paper to IEEE ICASSP 2021 in October 2021

Founder, Former President, and Advisor at Studio Heart Engine   *August 2019 - present*
- Founded and grew game development club to 30+ members, presented meeting materials on Godot engine
- Directed team, animated sprites, wrote storyline, and programmed scripts for Joyspring, an indie game
- Launched Joyspring on Steam after 1.5 years of development, hit 30k downloads in the first month of launch
- Maintained Joyspring, delivered patches and hotfixes in response to player feedback

Student Researcher at Pioneer Academics   *February 2020 - July 2020*
- Developed novel neural network architecture for depth prediction, outperformed many previous works
- First-authored 25+ page research paper, published in National High School Journal of Science in April 2021

Student Researcher at University of California, Los Angeles   *July 2019 - August 2019*
- Led team to develop novel collage art generation algorithm in UCLA SciArt Program
- Generated artwork featured in international Humanities+ Journal, won Scholastic Art Silver Key

TECHNICAL SKILLS

Java, C++, Python, Javascript, Tensorflow, Angular, Ruby, Elasticsearch, Logstash, Kibana, React, Django, Flask, Figma

HONORS

USA Computing Olympiad (USACO) Platinum Division
- Ranked around top 100 in highest division in international programming competition
- Tested in problem solving skills and topics in graph theory, dynamic programming, and other fields

American Invitational Mathematics Examination (AIME) Qualifier
- Scored in top 5% of competitors in national American Mathematics Competition (AMC)

National Merit Finalist
- Scored in top 16,000 students nationwide in PSAT, selected as finalist after application

Congressional Art Competition Finalist
- Artwork part of year-long exhibit in US Capitol, selected from nation-wide competition