William Liang

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EDUCATION

University of Pennsylvania, *School of Engineering & Applied Science* *Philadelphia, PA*
- *Bachelor of Science in Engineering in Computer Science, Minor in Mathematics* *May 2025*
- *Cumulative GPA*: 4.00/4.00
- *Relevant Coursework*: Mathematical Foundations of Computer Science; Programming Languages and Techniques; Automata, Computability, and Complexity; Data Structures and Algorithms; Multivariable Calculus; Linear Algebra

PROFESSIONAL EXPERIENCE

Anduril Industries, *Software Engineering Intern*, Irvine, CA *May 2022 - August 2022*
- Starting this summer, expect to develop core Lattice product, an operating system and mesh network that centralizes data from drones, aircraft, submarines, and sentry towers

Fungible, Inc., *Software Engineering Intern*, Santa Clara, CA *June 2021 - August 2021*
- Built end-to-end data processing unit 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

EXTRACURRICULAR EXPERIENCE

UPenn GRASP Lab, *Student Researcher*, Philadelphia, CA *February 2022 - present*
- Studied, implemented, and successfully trained landmark computer vision algorithms like YOLO and Faster R-CNN
- Helped set up multi-modal data collection and processing for latest dataset publication

Penn Electric Racing, *Developer*, Philadelphia, CA *September 2021 - present*
- Learned electrical components of REV 6 race car, embedded programming, and UNIX operating systems
- Worked in team to develop CAN-SPI adapter for data acquisition board, allowing car to wirelessly transmit data in real time

University of California, Santa Barbara, *Student Researcher*, Santa Barabara, CA *June 2020 - December 2021*
- Researched evolutionary neural networks at UCSB Research Mentorship Program (RMP)
- Developed novel algorithm for training neural network encoders to play Snake, presented results in paper and symposium

Studio Heart Engine, *Founder, Former President, Advisor*, Pleasanton, CA *August 2019 - December 2021*
- Founded and grew game development club and studio to 30+ members, presented meeting materials on Godot engine
- Directed team, animated sprites, crafted storyline, and programmed scripts over 2 years to build Joyspring, an indie game
- Launched Joyspring on Steam, hit 30k downloads in the first month of launch through extensive marketing and promotions

Pioneer Academics, *Student Researcher*, Pleasanton, CA *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

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

HONORS AND AWARDS

- **USA Computing Olympiad** (USACO) Platinum Division, top 100
- **American Invitational Mathematics Examination** (AIME) Qualifier
- **National Merit** Finalist
- **Congressional Art Competition** Finalist, oil painting displayed in Capitol from 2019 to 2020

SKILLS AND INTERESTS

Technical Skills: Java, C++, Python, Javascript, Tensorflow, Angular, Ruby, Elasticsearch, Logstash, Kibana, React, Django, Flask, Figma, Confluence, Jira, Slack, GDrive suite
Theory: Machine learning, deep learning, evolutionary algorithms, computer vision, data processing

Interests: Oil and acrylic painting, ink sketching, violin, ukulele, traveling