Maxx Yung

Website | LinkedIn | Github

Education

University of Pennsylvania

BSE in Materials Engineering. Minors: Mathematics and Computer Science.

Experience

Contrary Research

Senior Research Fellow

- Wrote technical research analyses on new AI accelerator architectures, publishing reports on Cerebras WSE-3 (12,000+ words), Groq TPUs (8,000+ words), and Lightmatter Photonic Chips (7,000+ words).
- Led primary research initiatives on SpaceX (7,000+ words) and Varda Space Industries (8,000+ words).
- Delivered investment analyses for Cerebras' IPO to Two Sigma (\$60B) and Tower Research Capital (\$3B).
- Authoring Building an American TSMC: analyzing Intel Foundries and rebuilding American dominance.

Singh Center for Nanotechnology

Undergraduate Semiconductor Researcher

- Nanofabricating photomask and chip for Nanoneuro's Neural-1 bioprocessor with 144 ITO electrodes.
- Learned cleanroom fabrication techniques, including photolithography, DRIE, PECVD, and spin coating.
- Modeled micro-scale non-Newtonian fluid dynamics in microfluidic systems using ANSYS Fluent.
- Experimented with hexagonal microfluidic devices as an improvement compared to linear microchannels.

Nanoneuro Systems

Founder

- Founded a deeptech startup to create 10,000x more efficient AI inference chips using human brain cells.
- Secured \$1,500,000 in grant & equipment funding from Penn, biological research companies, and angels.
- Collaborating with the Singh Nanotech Center & Penn Medicine labs for chip and biologics development.

Corder Neuroscience Lab at Penn Medicine

Undergraduate Neuroengineering and Computer Science Researcher

- Co-developing A-SOiD (publishing in Nature Methods), the 1st open-source software for integrated mice movement, EEG signal, and calcium data analytics pipeline with researchers at Stanford and CMU labs.
- Developed automated cell identification software using Cellpose & OpenCV, performing on-par with the industry-standard HaloAI (costing \$20,000/year) and saving 300+ hours of manual quantification.
- Reduced processing time by 99.99% for bulk microscopy imaging via Python scripts (pending paper).

Raymond James Financial

Raymond James Electronic Trading (RJET) Extern

- Engaged in team discussions to analyze government action on M&A activities to revise algo strategies.
- Studied high-profile mergers like Jet Blue & Spirit Airlines and Nippon Steel & US Steel to revise algos.

Zhu Neuroscience Lab at SUNY Old Westbury

High School Researcher \rightarrow Lab Technician

- Automated neuronal analysis protocols with Python, saving 200+ hours of manual quantification labwide.
- Implemented molecular docking and simulation tools for in-silico drug discovery for the lab using Python.

Honors & Awards

- 2023 International Regeneron STS Semi-Finalist
- 2023 American Neurology Neuroscientist Winner
- 2023 Stanford Neuroscience Conference Speaker

Philadelphia, PA Aug 2023 - May 2027

Remote May 2024 – Present

Philadelphia, PA Sep 2023 - Present

Philadelphia, PA

May 2023 – Jan 2025

New York City, NY Dec 2023 - Jan 2024

Old Westbury, NY

Jun 2019 – Mar 2023

- 2023 2x MIT Research Conference Presenter
- 2024 Hult Prize Semifinalist (UPenn Representive)
- 2024 Contrary Builders Winner (UPenn Representive)

Philadelphia, PA

Mar 2024 – Present