**EDUCATION**

**Stevens Institute of Technology**, Hoboken, NJ

**Bachelor of Engineering in Computer Engineering (2023) | GPA:** 3.72

**SKILLS**

**Software:** Xilinx software suite: Vivado, MATLAB & Simulink, PSpice, ITRS Geneos, Autodesk Inventor, ARM Keil Tools, OpenCV, Tensorflow, Microsoft Azure

**Programing:** C++, Python, Java, ARM, RISC-V, VHDL, Verilog, HTML, Javascript, SQL

**Languages:** English (Native / Bilingual Proficiency), French (Limited Working Proficiency)

**Other:** FPGA’s, Soldering, Logic Analyzers, Oscilloscopes, UNIX/LINUX Systems, Debugging, Git

**EXPERIENCE**

**Systems Operations Engineer**, July 2023 - Present

*Wells Fargo Bank, 30 Hudson Yards, New York City*

* Leverage ITRS Geneos to manage infrastructure for applications spanning over 100 servers, implementing state tracker optimizations for backend services critical to calculating greeks for options positions.
* Diagnose and resolve critical trading application issues, such as pricing malfunctions including stale PnL Attribution (PLA) and disrupted order flow, in collaboration with equity derivatives traders, increasing pricing system efficiency by 25%.
* Automate error detection scripts using *Python* and *Bourne shell*, and enabling real-time transaction error detection from user logs rather than relying on interface error alerts in equity trading interfaces (e.g. Fidessa and WEX), reducing detection time by 30% and uptime by 5%.

**Software Engineering Intern,** June 2022 - July 2023

*Wells Fargo Bank, 150 E 42nd Street, New York*

* Enhanced UI/UX and frontend systems using *React.js*, incorporating grid coverage analytics and Apache HBase insights into a responsive and user-friendly GUI, leading to a 10% increase in user engagement.
* Conducted comprehensive unit testing via *SonarQube* to ensure the stability and reliability of financial pricing tools, enabling quants to produce accurate risk calculation models.
* Collaborated with an Agile development team to design and implement scalable, efficient solutions for trading platforms, ensuring code quality through thorough reviews and optimizing deployment workflows using Jenkins pipelines to reduce deployment times and improve system adaptability.

**Frontend Developer,** May 2021 - May 2022

*American Dragon Fine Art,Lancaster, Pennsylvania*

* Designed and developed [americandragonfineart.com](http://www.americandragonfineart.com) with a modern, responsive user interface tailored to the fine art industry, featuring bilingual support in English and Mandarin Chinese.
* Implemented advanced frontend technologies, including *HTML5*, *CSS3*, and *JavaScript*, to create a visually engaging and accessible user experience.
* Liaised with stakeholders to understand their needs and translated them into functional features.

**PROJECTS**

**BioCharge, Senior Design Project,** September 2022 -May 2023

* Led the electrical system design for a wearable energy-harvesting device utilizing the piezoelectric effect to generate power from user movement.
* Integrated piezoelectric materials and induction coil generators to convert mechanical strain into electrical energy, enabling on-the-go charging solutions.  
  Conducted simulations and analyses using MATLAB to optimize power output and system efficiency.
* Collaborated with a multidisciplinary team to ensure the device was both functional and user-friendly, enhancing mobility while providing sustainable energy generation.

**Buck-Boost Converter Design,** 2024

* Designed a MATLAB Simulink-based buck-boost converter in collaboration with a peer, achieving an 80% efficiency rate under test conditions.
* Developed and fine-tuned a PID feedback controller, ensuring smooth signal matching with minimal error margins
* Optimized PID controller performance using iterative testing and gain adjustment techniques, resulting in stable output under varying operational loads.