Kevin Chen

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EDUCATION

University of Pennsylvania, School of Engineering & Applied Science, Philadelphia, PA — May 2021
MSE in Electrical Engineering | **BSE** in Computer Engineering — **GPA:** 3.87/4.00
Minors: Mathematics; Engineering Entrepreneurship — Dean's List ('17 – '19) | Tau Beta Pi ('20)
Relevant Coursework: Digital Circuit-Level Modeling | Computer Architecture | Data Structures and Algorithms | Embedded Systems Lab | *Current:* SoC Architecture | Operating Systems | Co-Design for Machine Learning

TECHNICAL EXPERIENCE

Electrical Lead, Penn Electric Racing, *University of Pennsylvania* — 2017 – Present

- Led a 25-member electrical team in designing custom electronics and wiring harnesses for electric racecars that consistently place top three internationally at FSAE Lincoln, America's largest student-built racecar competition
- Designed a semi-distributed, 300V battery management system, consisting of daughter boards that monitor the temperature and voltage of lithium ion batteries and a motherboard that analyzes and responds to the data
- Drove the PCB design timeline by reviewing 15 four-layer boards, including a power distribution unit and an LCD dashboard, that use STM32 microcontrollers, communicate over CAN, and total 2000 components
- Fostered team growth by managing a Confluence documentation effort, resulting in 50 pages of knowledge transfer and design justification, expediting the onboarding process for a 75% increase in electrical team membership

Avionics Intern, Relativity Space, *Los Angeles* — Summer 2020

- Accelerated the power architecture towards first flight readiness by designing a battery management system with short circuit protection for packs that are used on both stages of the launch vehicle and supply over 1kW continuously
- Assisted in routing a 16-layer power distribution board, shaving over half a month off the development timeline

Electrical Engineering Intern, Latch, *New York City* — Summer 2019

- Designed an interface board for all Latch devices, halving the number of setup steps required to debug problems
- Implemented a solution for monitoring the battery capacity and usage of Latch devices in lifecycle testing
- Established a series of bring-up tests to verify the power management and data transmission of new devices

Software Intern, Office of Naval Research, *Naval Surface Warfare Center Philadelphia Division* — Summer 2018

- Developed software that simulated programmable logic controller modules to speed up testing of new configurations

COMMUNITY LEADERSHIP

Head Teaching Assistant, Discrete Mathematics for Computer Science, *Penn Engineering Online Learning* — 2018 – 2020

- Managed a team of five Teaching Assistants, who assisted over 250 master students from around the world
- Helped initiate Penn's new Online Master of Computer and Information Technology (MCIT) by holding weekly webinars and office hours to go over topics in discrete mathematics like combinatorics, graph theory, and probability

Committee Director, Science Olympiad at the University of Pennsylvania, *University of Pennsylvania* — 2017 – 2020

- Organized a competition attended by over 900 people forming top Science Olympiad teams from across the nation
- Acted as the liaison between a committee of nine event writers and the rest of the executive board, ensuring the preparation of five different national-level events; personally wrote and ran labs for dc circuit analysis and optics

SKILLS AND INTERESTS

- **Hardware:** PCB Design (Altium) | SPICE | Electronics Lab Equipment | Surface Mount Soldering
- **Programming:** Java | Verilog (FPGAs) | C | C++ | MATLAB | Git | Embedded Platforms (Arduino, mbed)
- **Interests:** Origami | Skiing | Catan | Musicals | Touch Typing (95 WPM) | Combinatorics