Jihong “Eric” Min

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EDUCATION

Purdue University (expected 2026)

- Bachelor of Science in Computer Engineering

SKILLS

Hardware: EAGLE, Altium, embedded systems design, multi-layer PCB design, microcontroller firmware development, hand/reflow soldering, DMM, Oscilloscope, datasheet comprehension
Software: C/C++, STM32CubeMX, Python, Git, Linux shell, Excel, Vim, EAGLE, Altium, KiCad, LTSpice
Communication protocols: I2C, SPI, UART, CAN

PROJECTS

Time Machine series of digital watches (2018~)

- Independently designed and manufactured custom watches, incorporating self-taught principles and skills along development
- Improved each successive model by implementing a strict set of design regulations aimed to continuously challenge personal growth and learning with each iteration
- Received multiple features on well-known engineering blogs, highlighting the watch’s unique features (Hackaday.com (2019), Hackaday.com (2023), Hackster.io (2023))
- Latest spec: **Time Machine Mk. 8 (2023):** 41x41mm 2-layer board designed in EAGLE with full-SMD construction, ATSAMD21G18 powered by 40mAh Li-Po battery with up to 36 hours of battery life with always-on display. Five peripherals connected to two I2C buses via SERCOM. Twin 4-digit LCDs, MAX17048 LiPo fuel gauge, BME680 environmental sensor, LIS3DH accelerometer. Built-in USB battery charging circuit. Smallest part 0402 size, hand and reflow soldered at home with cast iron skillet

Custom electronics for Formula SAE (2023~)

- Designed and built custom PCBs in Altium to measure, amplify, and send strain gauge data over CAN
- 4-layer STM32F4 based system with integrated PSU designed for high-performance, low-EMI operation
- Firmware written in STM32 HAL to handle data acquisition and CAN communication with MoTeC ECU

Side Projects

- Text-based RPG: Wrote a turn-based strategy game in Python featuring diverse player attack and defense mechanics including real-time status effects
- Personal website: Self-made personal website hosts project write-ups and dissertations

EXTRACURRICULARS

Formula Student

- **System Owner of DAQ sub-system:** Led R&D for data acquisition systems and designed custom electronics to measure vehicle dynamics
- **Sponsorships:** Raised money through sponsorships with corporations and school faculty

Student Employment

- **Peer Mentor**: employed at Purdue Bechtel Innovation Design Center as a Peer Mentor to help and consult students with electronics design and manufacturing

PERSONAL INFORMATION

Personality: Extremely driven and motivated, always curious and open to learn, social and outgoing
Interests: PCB design, embedded engineering, Formula 1, cars, motorsport, fitness, classical music
Work experience: English tutor (6 months, 2021), Served in the South Korean army (18 months, 2021)