(Eli) Zhihao Yu
elizhyu@gmail.com
(415)218-5860

Education:

Georgia Institute of Technology — Atlanta, GA
School of Electrical and Computer Engineering — Expected May 2021
Master of Science in Electrical & Computer Engineering — GPA: 3.88 (now)

Purdue University — West Lafayette, IN
Purdue Polytechnic Institute — May 2019
Bachelor of Science in Electrical & Computer Engineering Technology — GPA: 3.75

Experience:

West Lafayette, IN
Purdue Polytechnic Institute — Aug. 2017 – May 2019
Teaching Assistant and Grader of Embedded System

- Supervised active learning lecture sections.
- Provided one-to-one tutoring during lab sections
- Assisted to design homework questions for better active learning
- Communicated with students for feedback to improve course efficiency
- Graded for homework, quizzes, exams, and lab reports

Purdue Collaborative Robotics Lab — West Lafayette, IN
Undergraduate Research Assistant — Oct. 2016 – May 2017

- Learned about graduate-level research while assisting PhD students under Prof. Richard M. Voyles, the head of Collaborative Robotics Lab.
- Participated in robotic projects including bionic robot softskin and modular serpentine robot.

China Welfare Institute Children's Palace — Shanghai, China
Computer Programming Lead Instructor — Jun. 2016 – Aug. 2016

- Provided extra-curriculum programming tutoring on entry level C Language.
- Taught 20-student-class-size of middle school and high school students.
- Offered experience and knowledge of computer hardware architecture, C language coding and practical problem solving.

Projects:

EDB-UNIQUE (Group Research)
An Edge Detection Based Unsupervised Image Quality Estimation method, improved from the original UNIQUE algorithm, to better meet the need of fast expanding social network by focusing on distortion and blur types common in personal shot photos.
Image Processing, MATLAB, Python

Hybrid Electric Go-Kart (Group Academic)
A hybrid electric vehicle constructed from a scraped go-kart chasis, through performing research and utilizing existing electric vehicle systems, and designing and fabricating custom electric vehicle components.
CAN Bus, BMS (Battery Management System), Vehicle Electrical System, Harness, Embedded System

Tool Organization Solution (Personal)

Check https://www.elizhyu.com/resume/ for more details

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A 3D printing solution designed, validated, and improved for organizing different kinds of tools in workbench.

3D Printing, CAD

Prism Wearable Headset (Group Academic)
A personal wearable recording and data logging device designed and fabricated for early childhood autism research at Purdue University.

C#, SSH/SFTP Protocol, 3D Printing, CAD, Digital Circuit Design, Linux (RPi)

Mic Amplifier (Personal Academic)
A 3-stage microphone amplifier designed, fabricated, and verified, capable of handling both balanced and unbalanced input MIC signal, noise filtering, and 5-band equalizing, with 25.92 Watt of maximum output power.

Analog Circuit Design, Digital Circuit Design

Electric Guitar (Group Academic)
A self-designed spaceship looking wooden electric guitar fabricated with both hand skills and CNC machining.

Acoustic Instrument Design, CAD, CNC (Computer Numerical Control)

Honor:

Bachelor of Science, Graduate with Distinction
Issued by Purdue University on May 2019

Dean's List & Semester Honors
Issued by Purdue Polytechnic Institute for 7 semesters from Dec. 2015 to May 2019

Skills:

Language: Chinese (Native), English (Professional Proficiency), Japanese (Limited Working Proficiency)

Programming: C/C++/C#, .NET, JAVA, Python, LabVIEW, MATLAB, VHDL
Tool: Linux, Git
Controller: Arduino, FPGA, PLC,

Electrical: CAN Bus, BMS, Wireless Networks (WIFI, cellular, Ad hoc, BLE), Embedded System (SPI, I2C, UART), DSP, Digital Image Processing, Electric Machine Drives
Electronics: IC Design (Analog and Digital), VLSI Physical Design, High Level Synthesis, Optoelectronics
Engineering: CAD (Inventor, Fusion, CATIA), 3D Printing (FDM), CNC