

J. Jerry Cheng

ELECTRICAL AND COMPUTER ENGINEERING

Ann Arbor, MI, 48105

🏠 isobutylcyclopentane.github.io | 📧 Isobutylcyclopentane | 📺 chengj8

Actively seeking electrical and computer engineering related internship in Summer 2022

Education

University of Michigan

Ann Arbor, MI

M.S. IN ELECTRICAL AND COMPUTER ENGINEERING

Aug. 2021 - May. 2023 (expected)

- Current Track: Signal, Image Processing and Machine Learning
- Courses: Computer Vision, Matrix Method for Machine Learning

Rensselaer Polytechnic Institute

Troy, NY

B.S. IN ELECTRICAL ENGINEERING

Aug. 2017 - May. 2021

- GPA: 3.88/4.0
- Courses: Distributed Learning, Image Processing, VLSI Design, Communication System, Digital Signal Processing, Physical Chemistry, Organic Chemistry
- Professional Societies: TBP Engineering Honor Society, Rensselaer Chemical Society, Toast Rensselaer (**Founder**)
- Clubs: RPI Players (Playhouse Lighting Board), Rensselaer Christian Association

Skills

Programming	Python, C/C++, Verilog, VHDL, Matlab, Julia
Python Libraries	numpy, scipy, PyTorch, matplotlib, Flask (web framework),
Programming Related	Linux experience (Debian Derivatives, Ubuntu mainly), LaTeX , HTML5, and limited Bootstrap/jQuery experience
Engineering Related	Siemens NX CAD, SolidWorks, Soldering, Oscilloscopes ,
Electrical Related	Microcontrollers (Silicon Lab, Arduino), Embedded Systems, FPGA (Xilinx Vivado/Vitis on Zynq and Artix-7), Cadence
Chemistry Related	Virtuoso , OrCAD PSpice
Languages	Organic Chemistry, Spectroscopic Analysis (Mass Spect, IR, NMR), Laboratory Safety and Chemical Hygiene Plan
	English (bilingual proficiency), Chinese (native language)

Experience

Volunteer Matching Software (Prof. Jennifer Pazour)

Troy, NY

DEVELOPMENT OF A WEB APPLICATION FOR SUPPLIER DRIVEN SYSTEMS RESEARCH

Sep. 2020 - Dec. 2020

- Fully self-developed Python server backend on a public deployment-ready scale (Apache HTTP server)
- Deployed and tested among 100+ students as service providers
- Utilizing Bootstrap, JQuery and Jinja to cooperate with the frontend developers
- IRB experience involving working with data collected from real users

Undergraduate Research, Superlattice Surface Characterization (Prof. Gwo-Ching Wang)

Troy, NY

DEVELOPING ALGORITHMS FOR FASTER CURVE FITTING AND VISUALIZATIONS

Sep. 2018 - December. 2020

- Analyzing the surface characteristics of superlattice from AFM and RHEED
- Developed the "initial guess" method that can greatly reduce the curve-fitting computation
- About 50% computation time reduction from original method

Honors & Awards

Apr. 2018 **Exceptional Performance in Computer Science**, Department of Computer Science, RPI

Troy, NY

May. 2021 **Dean's Honor List**, School of Engineering, RPI

Troy, NY

Jun. 2016 **President's Award for Educational Excellence**, U.S. Secretary of Education

Bennington, VT