Terence Zeng

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Education

University of Illinois Urbana-Champaign Expected Graduation Date: May 2025

Bachelor of Science in Computer Engineering, Minor in Mathematics

- **GPA**: 4.0 (Dean's List, James Scholar, Robert E. Lepic Electrical Engineering Scholarship)
- **Relevant Coursework**: Analog Signal Processing, Data Structures and Algorithms, Introduction to Circuits, Computer Systems and Programming, Differential Equations, Linear Algebra, Physics: Electricity and Magnetism

Experience

Intern July 2023

Guotai Junan Investments

- Automated analytical parsing of incoming options trading data to assist with decisions, saving approximately 90 minutes every week
- Integrated tools such as Python, OpenPyXL, Pandas, and BeautifulSoup with internal email system

Course Assistant, ECE 120 (Introduction to Computing) January 2023 – May 2023

ECE Department, University of Illinois Urbana-Champaign

- Graded students' assignments and provided feedback on clarity and accuracy of solutions
- Worked with TAs and professor as a team to assist students in developing computing skills

Research Intern June 2021 – March 2022

Bandodkar Research Group, ECE Department, NC State University

- Developed computer models for wearable biosensors which monitor for diseases and medical conditions, using tools such as Fusion360, AutoCAD, and mathematical modeling
- Utilized CAD to design pills with wireless communication to monitor digestive systems of animals in vitro

Projects

Website Portfolio | *HTML, CSS, JavaScript*

- Utilized HTML, CSS, and JavaScript to create website featuring projects and experience
- Includes resolution-adaptive image gallery with transitions, light/dark mode switch, popup boxes, etc.

Machine Learning Facial Analysis Displayed on LED Matrix | *TensorFlow, OpenCV, Google MediaPipe*

- Consolidated microcontroller, LED system, and programs to develop project for Engineering Open House
- Detects facial features and emotional state of subjects and displays infographic on an embedded LED matrix, using tools such as TensorFlow, OpenCV, and Google MediaPipe computer vision framework

Computerized Simulation of Binary Black Hole Trajectory | *NumPy, Matplotlib*

- Developed a Python (with NumPy, Matplotlib) program that simulated path of binary black hole system by calculating metrics such as energy and radii over time using data from LIGO observatory

AM Radio Receiver | *Circuit Analysis, Oscilloscopes, Multimeters*

- Constructed a superheterodyne receiver circuit to receive radio signals from an antenna
- Connected RF module, envelope detector, intermediate frequency filter, and amplifier to speaker

Technical Skills

CAD: AutoCAD (certified), Revit (certified), Fusion 360, Solidworks, Inventor, 3DS Max
Languages: Python, Java, JavaScript, C++, HTML, CSS
Tools: Git, Google Cloud, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse, Quartus, Docker
Libraries: NumPy, MatPlotLib, TensorFlow, OpenCV, Pandas, BeautifulSoup, OpenPyXL

Activities

- Earthquake Engineering Research Institute - AutoCAD specialist, committee member
- Open-Source @ Illinois - Engineering Open House Project - hardware subteam
- UIUC Competitive Math
- Association for Quantitative Trading Education