# **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)
- **Relevant Coursework:** Introduction to Computing, Quantum Physics, Linear Algebra with Computational Applications, Computer Systems & Programming, Data Structures & Algorithms, Microeconomics, etc.

## **Experience**

Intern July 2023

Guotai Junan Investments (Hong Kong) Limited

• Automated analytical process of incoming trade data to assist trading decisions by integrating tools such as Python, OpenPyXL, Pandas, and BeautifulSoup with the system

# Course Assistant, ECE 120 (Introduction to Computing)

January 2023 - Present

Grainger College of Engineering, University of Illinois Urbana-Champaign

- Grade students' assignments and provide feedback on clarity and accuracy of solutions
- Work 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
- Collaborated with graduate students to initiate project ideas, analyze results, and troubleshoot issues

## **Projects**

#### Machine Learning Facial Analysis Displayed on LED Matrix - github.com/terencezeng6/eoh23

- 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 - github.com/terencezeng6/binary-black-holes

• Developed a complex 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

#### **Skills**

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

# **Activities/clubs**

- Earthquake Engineering Research Institute AutoCAD specialist, committee member
- Open-Source @ Illinois Engineering Open House Project hardware subteam
- UIUC Competitive Math
- Institute of Electrical and Electronics Engineers