# Jesse He

## Education

**The Ohio State University**, Columbus, OH.
*Expected May 2022*
Bachelor of Science in Mathematics, Honors Specialization
Bachelor of Arts in Computer and Information Science
GPA: 3.876

## Projects and Research

SU 2021 **Emerging Issues in Cybersecurity REU**, *New Mexico Institute of Mining and Technology*, Sorocco, NM (online).

- Advised by Dr. Subhasish Mazumdar, developed a python package to generate synthetic tabular data with geometrically defined classes
- Investigated the behavior of machine learning explanation framework LIME using generated synthetic tabular data
- Work presented at International Conference on Information Society (i-Society) and published in proceedings
- Extended paper to be published in *International Journal For Infonomics*

SP 2021 **CSE 3902: Interactive Systems**.

- Developed a clone of *The Legend of Zelda* in C# with a team of six in biweekly sprints, using an agile development strategy

AU 2020 **Hack OH/IO**.

- Using Google AppsScript and Prismjs, helped create an automatic syntax highlighter in Google Docs as part of a 48-hour hackathon project

## Employment

### OSU Deparment of Mathematics.

AU 2021 **Student Grader, Math 5590H Honors Abstract Algebra I**.

- Graded weekly homework assignments for an honors undergraduate course in abstract algebra, covering groups, rings, and polynomials

### OSU Deparment of Computer Science and Engineering.

AU 2020-SP 2021 **Undergraduate Grader, CSE 3521 Survey of Artificial Intelligence I**.

- Evaluated and gave feedback for assignments in introductory artificial intelligence including problem solving, knowledge representation, and machine learning
- Held regular office hours

AU 2019 **Undergraduate Grader, CSE 2221**, *The Ohio State University Department of Computer Science and Engineering*.

- Graded assignments in an introductory software engineering course covering design-by-contract principles, mathematical modeling of software functionality, component-based software from client perspective, and layered data representation
- Aided lab instruction and held regular office hours

### OSU Media, Marketing, and Communications Scholars.

SP 2020 **MMC Digital Sandbox Project Group Instructor**.
- Developed and taught a 7-week project-based course in LaTeX
- Also served as a Professional Development Co-Curricular for OSU's Second Year Transformational Project Program

## Skills

### Technical Skills
- Python, C, C++, C#, Java, Javascript/HTML/CSS, LaTeX, Git

### Languages
- Conversational Mandarin Chinese, basic skills in Spanish and Japanese