

# Katherine Zeng

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Availability: May – December 2022

## EDUCATION

**Northeastern University**, Boston, MA

*Sept. 2020 – Present*

**Khoury College of Computer Sciences**

*May 2024*

*Candidate for Bachelor of Science in Computer Science and Business Administration*

*Honors:* GPA [REDACTED] / 4.00 – Deans List, Deans Scholarship

*Relevant Courses:* Object-Oriented Design, Algorithms and Data, Programming in C++, Database Design, Fundamentals of Computer Science 1 and 2, Mathematics of Data Models, Discrete Structures

*Activities:* Women in Technology, Computer Science Mentoring Organization, Eon Dance, Asian Student Union (Mentor)

**Harvard University**, Cambridge, MA

*July – Sept. 2019, July – Sept. 2020*

*Honors:* GPA [REDACTED] / 4.00

*Relevant Courses:* Introduction to Web Programming Using JavaScript, Great Ideas in Computer Science with Java

**Winchester High School**, Winchester, MA

*Sept. 2016 – May 2020*

*Honors:* GPA [REDACTED] / 4.00 – National Honors Society, AP Scholar with Distinction

*Relevant Courses:* Honors Web Design I, AP Computer Science Principles

*Activities:* Technovation (Marketing Team Head), Red & Black Newspaper (Business Manager), Public Speaking Club (President), High School Helpers Tutoring (Coordinator)

## TECHNICAL KNOWLEDGE

Languages: Java, HTML, CSS, Bash, Python, JavaScript, C++, SQL, DrRacket

Software: IntelliJ, Visual Studio Code, Eclipse, Git, MySQL, Jupyter Notebook, LaTeX, Microsoft Office

Operating Systems: MacOS, Windows, Linux

## PERSONAL AND ACADEMIC PROJECTS

### Flood-It

*Aug. 2021*

- Built customizable strategy game using Java to transform a grid of different colors into one color within an allowed number of clicks.
- Incorporated Inheritance and Encapsulation from the Four Principles of Object-Oriented-Programming.
- Utilized the installation of Northeastern's jar library to represent images and simulate animations.

### Mastermind

*July 2021*

- Developed Java game prompting users to guess the correct order of randomly-generated colors through instant feedback before game ends.
- Applied S.O.L.I.D principles from Object-Oriented Design including Single-Responsibility, Open-Closed, Interface Segregation, and Dependency Inversion.
- Users interacted through single entry point on main function.

### Image Processing

*June 2021*

- Pair-programmed Java application centered around layered image manipulation.
- Included ability to display interactive GUI-based user interfaces with Java Swing, create images programmatically, import and export images, manipulate individual layers, and add image transformations.

### FreeCell Card Game

*May 2021*

- Created text-based Java program through IntelliJ that simulates a one-player card game.
- Implemented Model-View-Controller Framework.

## INTERESTS

Badminton, Archery, Painting, Photography, Chinese Classical Dance, and Piano