

---

# Kevin Cao



<https://defcoding.github.io>



[/in/cao-kevin](https://in/cao-kevin)

---

## EDUCATION

### Indiana University

2016 - Present

**B.S in Computer Science | Minor in Mathematics**

Expected Graduation Date: May 2021

**Specialization:** Software Engineering

**Major GPA:** 3.967 (Cumulative GPA: 3.384) / 4.00

## TECHNICAL SKILLS

<b>Languages</b>	Java, Python, Javascript, C, HTML, CSS, C#, Racket, x86, Swift, Processing, Kotlin, Scala, $\text{\LaTeX}$
<b>Frameworks</b>	ReactJS, Bootstrap, jQuery
<b>Databases</b>	PostgreSQL
<b>Other</b>	Unix, Git, IntelliJ, XCode, RESTful APIs, Agile Development, Vim, Photoshop, After Effects, Premiere Pro

## WORK EXPERIENCE

### Indiana University Department of Computer Science

May 2019 - Present

*Data Structures Head Undergraduate Instructor*

Bloomington, IN

- Lead other instructors as the head assistant and facilitate communication and teamwork.
- Build various scripts to automate grading processes and assist in instructing.
- Instruct laboratory classes to personally guide students and grant hands-on experience with building data structures.
- Hold office hours to answer questions and provide supplementary lectures to topics discussed in class.

### Indiana University School of Informatics, Computing, and Engineering

August 2019 - May 2020

*CS Tutor*

Bloomington, IN

- Managed and guided groups of students requesting tutoring for different courses.
- Provided assistance to students for a variety of topics, including C, artificial intelligence, and databases.
- Arranged private tutoring sessions for students with special needs.

## LEADERSHIP EXPERIENCE

### Indiana University Student Government

August 2020 - December 2020

*Project Manager*

Bloomington, IN

- Lead a group of software engineers in rebuilding the IU Student Government website with templates made with Ktor/Kotlin.
- Implemented Agile development methods and coordinated project milestones and timelines.

## RESEARCH EXPERIENCE

### Research Assistant

August 2020 - December 2020

- Designed a program to perform computations of molecular dynamics through the interpretation of chemical assemblies as chemical abstract machines.
- Implemented the chemical abstract machine and performed asynchronous computation by using Scala's Chymyst library.

## TECHNOLOGY PROJECTS

### Tokyo Grill Inc. Website

January 2021

- Cut website costs by over 90% for Tokyo Grill as the sole developer of the website.
- Built static site with the Sanity.io CMS and ReactJS/MDBootstrap frameworks.

### NEAT Dino Run

April 2020

- Built Google's Dino Run game in Processing 3 and developed an AI using NEAT algorithm that could "beat" the game.
- Implemented real-time graphical interfaces to display neural networks and show progress of generational performance.

### Teaching Assistant Discord Bot

March 2020

- Created a bot that interacted with the Discord API to assist instructors in teaching online courses and remote learning.
- Organized a queue of students while maintaining an interactive topic subscription list using the bot.

### DefineCoding Website

July 2018 - Present

- Designed mobile-friendly static personal website from scratch with vanilla HTML/CSS/Javascript.
- Write informational blog posts and YouTube videos on various programming concepts to educate viewers.