
Kevin Cao



<https://defcoding.github.io>



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EDUCATION

Indiana University

B.S in Computer Science | Minor in Mathematics

Specialization: Software Engineering

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

Graduation Date: May 2021

Bloomington, IN

TECHNICAL SKILLS

Languages	Java, Python, Javascript, C, HTML, CSS, C#, Racket, x86, Swift, Processing, Kotlin, Scala, \LaTeX
Frameworks	ReactJS, Bootstrap, jQuery
Databases	PostgreSQL
Other	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.