Kevin Cao

https://defcoding.github.io

Education

Indiana University 2016 - Present

B.S in Computer Science | Minor in Mathematics Expected Graduation Date: May 2021

Specialization: Software Engineering

Major GPA: 3.961 (Cumulative GPA: 3.333) / 4.00

Technical Skills

Front-End HTML, CSS, Javascript, ReactJS

Back-End Java, C, Python, Racket, C#, ExpressJS, GDScript, Swift, Processing, Kotlin, Scala

Databases PostgreSQL

Workflow Unix Operating Systems (Arch/Ubuntu), Git.

Other LaTeX, Markdown, Photoshop, Premiere, After Effects, Animate, Audacity, AutoDesk Inventor, Godot, Unity

Work Experience

Indiana University Department of Computer Science May 2019 - Present

Data Structures Undergraduate Instructor Bloomington, IN

- Lead laboratory classes to personally guide students and grant hands-on experience with building data structures.
- Approach data structures in a variety of perspectives to provide flexible teaching material to students.
- Hold office hours to provide students opportunities to have questions answered and provide supplementary lectures to topics discussed in class.

Indiana University School of Informatics, Computing, and Engineering August 2019 - May 2020

Tutor Bloomington, IN

- Successfully managed and guided groups of students requesting tutoring for different courses.
- Aided Chinese foreign exchange students by teaching in Mandarin Chinese.
- Seamlessly balanced tutoring workload with student workload.

Leadership Experience

Indiana University Student Government August 2020 - Present

Project Manager Bloomington, IN

- Manage a group of software engineers in rebuilding the IU Student Government website.
- Utilize Ktor/Kotlin to create HTML and CSS templates.
- Organize weekly meetings to stay up to date on the status of the project and provide hands-on assistance to the team.

Research Experience

Research Assistant August 2020 - Present

- Perform computations of molecular dynamics through the interpretation of chemical assemblies as chemical abstract machines.
- Utilize Scala's Chymyst library to implement the chemical abstract machine and perform asynchronous computation.

Technology Projects

NEAT Dino Run April 2020

- Recreated Google Chrome'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

- Utilized Discord API to create a bot to assist instructors in teaching online classes during COVID-19 pandemic.
- Bot would organize and manage a queue of students, and also maintained a subscription list to teaching topics by taking advantage of Discord reactions.

DefineCoding Website July 2018 - Present

- Learn responsive website design practices to make the website mobile friendly.
- Educate readers with informative blog posts and YouTube videos on various programming concepts.