Benjamin Gilbert

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EDUCATION

University of California, Los Angeles   Los Angeles, CA
Bachelor's Degree in Computer Science & Linguistics   *Graduated June 2023*
- Theoretical CS Coursework: Optimization Algorithms, Graphs, Automata & Turing Machines, AI & Neural Networks
- Technical CS Coursework: C++, Java, Python, and Lisp projects; Using Git Collaboratively; Webpage Development
- Linguistics Coursework: Symbolic Logic, Syntax and Semantics, Formal Language Theory, Advanced Mandarin

EXPERIENCE

The Coder School   May 2017 – Present
Programming Tutor   *San Francisco & Los Angeles, CA*
- Teach Python, Java, C#, HTML/CSS, and Scratch
- Prepare students for AP CS coursework, helped multiple students receive 5s on the exam
- Design and teach one-on-one programming lessons for up to 15 students a week
- Collaborate with students on intermediate-level projects, frequently recreating games like Connect4, Wordle, the snake game, etc.

Information Technology Support Specialist   Jun. 2022 – Jun. 2023
University of California, Los Angeles   *Los Angeles, CA*
- Assisted students in configuring computers for CS coursework: setting up IDEs, installing packages, connecting to the university's Linux server, etc.
- Fixed hardware and software issues such as removing viruses, installing drivers, and fixing monitor displays for students and staff members
- Offered daily over-the-phone tech support to get students connected to campus Wi-Fi, including scheduling appointments for router installations

PROJECTS

Chatroom Statistics Generator | *Python, PostgreSQL, HTML/CSS/Javascript, AWS*   Website / Github
- All readable messages from a Discord server are processed in batches via Discord's API, and relevant info is saved to a PostgreSQL database
- Statistical data is neatly displayed on a webpage with help from Django's HTML templating and Javascript
- Displays info such as # of messages sent, most common emojis, most active times of day, highly pinged users, and more
- Operations are optimized using asynchronous programming, as well as a system of loading and unloading cached objects
- Stat site is hosted on my website using AWS Elastic Beanstalk
- Users can control access to their data using simple commands

Video Object Coordinate Tracking | *Python, OpenCV, Docker, Kubernetes*   Github
- A server which receives videos and, using OpenCV, detects the coordinates of a simple object in the video
- Uses a TCPSocket connection to receive a video stream and display coordinates
- Client uses numpy arrays and OpenCV to generate an image of a blue ball bouncing around the screen
- Client streams the video to the server, server returns its detected coordinates, and the client compares the actual coordinates of the ball to the coordinates that the server detects
- Initialized the server and client files as Docker images, and deployed the Docker images using minikube. Full deployment process is included in the Github Repo

Chess Online CLI | *C++, Websockets*   Github
- Chess on the command line, with a multiplayer option
- Players can either both play locally on the same computer, or connect from different computers
- Connection over the internet is facilitated using sockets sending packets of info