

Jonathan Yin

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EDUCATION

University of California, San Diego

La Jolla, CA

Bachelor of Science in Mathematics and Computer Science, Minor in Computer Engineering Sept. 2020 – June 2024

Relevant Coursework: Data Structures, Algorithms, Operating Systems, Software Engineering, Databases, Computer Architecture, Theory of Computation, Deep Learning, Honors Linear Algebra, Statistics, Quantum Computing

EXPERIENCE

Instructional Assistant

Mar. 2024 – Present

UC San Diego Computer Science and Engineering Department

San Diego, CA

- Tutored undergraduate students on software engineering practices, including agile, version control, and testing
- Pioneered the development of an automated grading system using Next.js and TypeScript, streamlining the evaluation of 2000+ assignments from over 350+ students
- Debugged HTML/CSS/JavaScript code for over 100+ students, receiving a 100% approval rating

Frontend Developer Intern

Sept. 2023 – Mar. 2024

Center for Applied Internet Data Analysis

San Diego, CA

- Refactored over 2000+ lines of React code for Meteor.js data monitoring application, enhancing readability and maintainability via SASS/Ant Design
- Led the migration and integration of legacy testing API into React codebase using Express, enabling storage into MongoDB database collection

Undergraduate Researcher

June 2023 – Dec. 2023

UC San Diego Computer Science and Engineering Department

San Diego, CA

- Worked with Professor Sicun Gao on research projects involving deep reinforcement learning
- Studied reinforcement learning techniques independently, replicating algorithms in OpenAI's Spinning Up project

Software Engineering Intern

June 2023 – Aug. 2023

Northrop Grumman

San Diego, CA

- Authored Python scripts to automate over 50 API calls for map software system, improving system efficiency and reducing manual overhead
- Developed and implemented a suite of testing solutions for application GUIs using Robot Framework and Python
- Leveraged Robot Framework's libdoc tool to automate documentation for five application codebases

IT Intern

May 2022 – Aug. 2022

Stellantis

Auburn Hills, MI

- Created a UE5 prototype to capture and display high-resolution screenshots of vehicle models imported from Maya

Software Development Intern

June 2021 – Aug. 2021

Berkeley Pharma Tech

Berkeley, CA

- Built and published an Android game to the Google Play Store using Unity and C# scripts

PROJECTS

Computer Vision Spotify Art | *OpenCV, TensorFlow, Keras, AWS*

Mar. 2024 – Present

- Built a generative AI tool to create artwork based on Spotify playlists using deep learning and computer vision
- Implemented custom playlist sorting based on song cover art via image analysis and K-means clustering

Cloud Frame | *Next.js, Tailwind CSS, TypeScript, Node.js, Cloudinary*

Aug. 2023 – Dec. 2023

- Engineered a cloud-based photo gallery using Next.js, supporting high-resolution image storage and retrieval
- Integrated Cloudinary for real-time image processing, enabling features such as dynamic resizing, and filtering

Sustainability Research | *Vue.js, Leaflet, Tailwind CSS, Node.js, Express*

Jan. 2023 – Apr. 2023

- Spearheaded the design and development of an interactive research site, leading a team of five students
- Leveraged Leaflet and Mapbox APIs to create a custom map interface for locating local producers in San Diego

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, Python, C#, C++, C, HTML, CSS, SystemVerilog, SQL

Frameworks: Next.js, React.js, Redux, Node.js, Express, Vue.js, Jest, JUnit, Flask, NumPy, OpenCV

Tools: Git, Jira, Amazon Web Services (S3, Lambda, EC2), MongoDB, Firebase, VS Code, Vite, Postman, Agile