

# Daniel Binoy

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## Skills

### Software Development

Proficient: Python, C++, Java, JavaScript, React.js, Bootstrap, HTML, CSS, jQuery, Processing, p5.js  
Familiar: NodeJS, C#, Selenium, Express, AWS, GTest, Web Crawling, MongoDB, Heroku, Unity3D

### Other

Git/Github, Agile, Photoshop, Linux, UI/UX Design, VirtualBox, Arduino, 3D Printing

## Experience

### Software Engineering Intern

- Producing clean, efficient code based on user stories and integrated software components
- Authoring automated unit, integration, and system tests
- Troubleshooting and debugging existing Python and React code base

### Project Committee Member

- Working to develop online solutions tailored to aid UCI students to improve student experience
- Rebuilding and redesigning zotistics website from ground up in React

### Web Design/UX Intern

- Managed website interface, pitching and implementing ideas to better design, code, and modify the site
- Created visually appealing site features for user-friendly design and clear navigation
- Streamlined website structure and page layouts, resulting in 4x faster load times

### Computer Science Instructor

- Taught computer science concepts at various levels in Processing and Java to 60+ students
- Communicated with operations staff on optimizing problem sets to emphasize learning and retention
- Developed automatically graded curricula, problem sets, and lesson plans

### Vice President

- Grew MESA(Mathematics Engineering Science Achievement) by over 40% from 50+ to 80+ members
- Lead club to best year to date, winning over 72% of all prizes, with 90% of members winning

## Education

**University of California, Irvine**  
BS, Computer Science | 3.7

**Expected Graduation: Dec 2021**

## Projects

### Portfolio Website

- Created a responsive personal portfolio website, featuring projects and more about me
- Used React, Bootstrap, HTML, JavaScript, and CSS for dynamic content through custom components
- Features aesthetic interface, light/dark mode, and smooth animations, as improvements from old site

### Blog App

- Created full stack blog app where users can read articles, as well as upvote and leave comments
- Hosted on AWS EC2 server with backend written in NodeJS and Express
- Front end written with ReactJS, using MongoDB to store comments and upvotes

### UCI Web Search Engine

- Wrote search engine from ground up in Python capable of handling tens of thousands of documents
- Runs under harsh operational constraints with query response time under 300ms
- Incorporates tf-idf, contextual relevance ranking, tokenization, and stop word handling

### 3D Music Visualizer

- Built bezier-based 3d generative music visualizer using p5.js and webgl
- Generates complex visuals that react to mouse, keyboard, and microphone input

### Bubbles Together

- Utilized p5.js to create shared drawing experience with particle effects
- Deployed app using Heroku with NodeJS, Express, and SocketIO for backend