Tony Ito-Cole Software Engineer | University of California, San Diego

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TECHNICAL SKILLS

Strong: JavaScript (ES6+), TypeScript, React (Hooks, Router), Redux (Thunk), Node.js, Express.js, SQL, HTML, CSS
Experienced: NoSQL, ODMs (Mongoose), Electron, Next.js, TDD (Jest, Enzyme), Bash, Git, CI/CD, Konva, Material-UI, Webpack, React Native, D3.js, Puppeteer, Docker, AWS, Linux, Python, Java, MATLAB, OpenCV

EXPERIENCE

ReacType | Software Engineer   **2020**
- Developed a React application prototyping tool that provides developers with a fast, reliable, and easy-to-use platform to visually design their project, expediting the initial set-up stage of building their desktop or mobile product
- Leveraged TypeScript's strictly typed nature to allow for quicker development through faster debugging, accelerating the process of constructing responsive components that rely on the unidirectional passage of information
- Harnessed Redux's paradigm of data flow to improve the reliability of programs that experience dynamic, high-frequency changes to the view, where unpredictable user inputs need to be reflected in a global store with accuracy and precision
- Utilized Electron's robust event emitting capabilities to design commands programmed to display a uniquely designed tutorial that is responsive to user input, and to implement keyboard shortcuts that enable quick editing of components
- Designed a history navigation algorithm by manipulating the immutable behavior of the global state in the Redux store
- Implemented a React Native mode that allows users to switch to an interface designed for creating mobile applications

Salk Institute for Biological Studies | White House BRAIN Initiative Researcher **|** Systems Neurobiology   **2013 - 2019**
- Employed the OpenCV library for Python to create object counting programs that detect cell brightness and eccentricity
- Updated a MATLAB based intrinsic brain signal imaging program's codebase to work with a 64-bit architecture system
- Improved a visual area segmentation algorithm using Gaussian distribution for quantifying intrinsic brain activity
- Automated image analysis and alignment processes in Java to render 3D reconstructions of fluorescent brain tissue

Western Science | Web Developer   **2012 - 2014**
- Utilized JavaScript, PHP, and MySQL to design a web application with a functional customer portal and cart system

OPEN SOURCE

Compost | A Pastebin influenced user authentication-free group travel checklist application
- Crafted a RESTful API service with Node.js and Express to create custom routes and middleware, flexibly converting HTTP requests to secure SQL queries and mutations that allocate item and user data to each randomly generated URI
- Designed a React front-end with dynamic routing to create a single-page isomorphic application, leveraging state management in functional components through the use of hooks that respond to various asynchronous events
- Utilized Webpack to compress the application to boost overall performance before deployment onto a cloud platform

Polobot | An email notifier for the Poloniex cryptocurrency exchange
- Created a Python program designed to make secure API requests to manage sensitive information about a client's assets

EDUCATION

University of California, San Diego | *B.S, Biochemistry and Cell Biology*   **2014**
Relevant Coursework: Fluency in Information Technology, Introduction to Programming, Biostatistics

Lake Erie College of Osteopathic Medicine - College of Medicine

PUBLICATIONS AND PRESENTATIONS

"Improved Monosynaptic Neural Circuit Tracing Using Engineered Rabies Virus Glycoproteins" | *Cell Reports*   **2016**
"Extraction of Distinct Cell Types from Within a Genetically Continuous Population" | *Neuron (Accepted)*   **2020**
"Server-Side Rendering: When and Why?" | *SingleSprout Software Engineering Speaker Series*   **2020**

INTERESTS

Volunteering at a homeless youth resource center (Stand Up for Kids), catching up on the latest medical and neuroscience research, teaching biology, computer science, and Japanese language concepts, and hanging out with my wonderful cat