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# **Shray Bansal**

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#### **SKILLS**

**Strong:** JavaScript, ES6, React.js, Redux, React Native, Webpack, Angular.js, MongoDB, Node.js, Express.js, jQuery, HTML, CSS, SASS, Blockchain, Ethereum, Solidity, IPFS, Electron, OOP, TDD, Mocha, Chai, GitHub

Experienced: Python, Django, D3, Bootstrap, Gulp, Supertest, Enzyme, Jasmine, Tape, Photoshop, Agile SCRUM

#### **EXPERIENCE**

# DeStore | Lead Engineer | A decentralized file storage platform using secure cryptocurrency transactions 2016

- Architected a distributed P2P file transfer application using blockchain technology and IPFS file transfer where users can store and rent out spare hard drive space through an Electron application
- Modified and extended web3.eth and IPFS JavaScript implementation libraries to allow client-side communication with Ethereum smart contracts and IPFS Node.js modules
- Provided a guaranteed payment security to users with the use of AES-128 encrypted data chunks and Ethereum smart contracts written in the Solidity programming language
- Conducted P2P File transfer by chunking files using a Merkle DAG and distributing them to a randomized selection of hosts
- Employed TDD by using Tape to ensure smart contract functionality and protect against financial security vulnerabilities

#### InfoBahn Softworld | Software Engineering Intern

2015

- Consulted with Salesforce Team to construct a JavaScript dashboard to track POD configuration progress for systems engineers
- Optimized UI retrieval performance by 60% by adding pagination and incremental loading
- · Implemented multi-parameter search filters to augment the accessibility of API-fetched data
- Followed TDD and Agile SCRUM methodology to continuously integrate user concerns during development

### Information Technology Services Learning Environments USC | Student Technical Assistant

2015-2016

Managed USC computer centers and assisted students and faculty with classroom technologies

#### **PROJECTS**

#### Ballr | NBA Player Statistics Comparison and Analysis Tool

2016

- Architected React front-end to compare players based on their in-game statistics using a self-constructed algorithm
- Utilized Cheerio is and Node to create a REST API using player statistics web scraped from basketball-reference.com
- Improved application state management using Redux to handle complex user interactions and enhance error handling
- Conducted robust testing to ensure functionality of redux reducers and React components with Mocha and Enzyme

# Command Shift | Automated nurse duty assigner for the Ivy Creek Healthcare and Wellness Center

2016

- Exposed REST APIs using MongoDB in order to enable AJAX calls by the React Native mobile counterpart
- Constructed application state using functional programming principles in React to create pure, stateless functions
- Refactored to keep computational logic on server side by ensuring that AJAX calls would be called during initial render
- Implemented testing to prevent user error and ensure the accuracy of the database using Mocha, Chai, and Supertest

# Leftovers | A nutrition application that derives a healthy fast food diet from one's remaining macros

2016

- Architected Angular front-end to display FoodFact API results selected using multiple macronutrient calculations
- Manipulated Google Maps API to allow for multiple asynchronous calls to find the locations of nearby restaurants
- Leveraged continuous integration and hosting of application by deploying to AWS Elastic Beanstalk using HTTPS

## **EDUCATION**

**Codesmith,** Advanced Software Engineering Immersive Program

2016

University of Southern California, Bachelor of Science in Human Biology

2012-2016

**Relevant Coursework**: Data Structures & Object Oriented Design

Linear Algebra & Linear Differential Equations

Web Publishing Statistics

INTERESTS

Boy Scouts of America: Eagle Scout and mentor to incoming scouts

Dance: Captain of USC Zeher, a competitive USC hip hop-bollywood fusion dance team

Volunteering: Technical Mentor in community Python class designed to raise money for nonprofit Small Steps Foundation