

# Raymond Lang

San Francisco, CA

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## Skills

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Python, React.js, SQL, Node.js, Express.js, MongoDB, JavaScript, jQuery, Redux, Flask, Alembic, PostgreSQL, Git, HTML5, CSS3, Webpack, Heroku, TDD, Docker, Object Oriented Design, Google Analytics 4, Salesforce

## Projects

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### ByteBud (Flask, Python, React, Redux, Alembic, PostgreSQL, Socket.IO)

[Live](#) | [Github](#)

Discord-inspired app allowing users to create servers to interact in real-time with their communities

- Utilize **websockets with Socket.io** to implement real-time messaging in channels between members of the channel's server
- Develop the application's backend using **Flask** as framework to allow for flexibility and simplicity while scaling app
- **RESTful API endpoints** for Create, Read, Update, and Delete operations for users, friends, servers, channels, messages, and reaction

### Tripster (MongoDB, Express, Node, React, Redux)

[Live](#) | [Github](#)

Single-page application with interactive messenger that allows registered users to plan trips with other users with ease and organization

- Generated fully specified backend built with **Node.js, Express.js and MongoDB**
- Devised **data structures in MongoDB** to ensure trip pages were private, granting authorized user permission to add users, comments, and itinerary items
- Integrated **Redux Toolkit** unidirectional data flow to create predictable, normalized state and **reliable DOM rendering** for efficient load access to trips based on logged-in user

### Connectify (MongoDB, Express, Node, React, Redux)

[Live](#) | [Github](#)

Web application that allows users to share posts/photos and interact with friends

- Create top level authentication component, using **JWT** and custom authentication logic to dynamically allow user access
- Designed and modeled the application's data using **MongoDB**, creating efficient **data structures and relationships** for optimal storage and retrieval
- Implemented a flexible and customizable **color theme system**, including support for dark mode, to enhance the visual appeal of the application

### Serpent VS Square (JavaScript, HTML5, CSS3)

[Live](#) | [Github](#)

An HTML canvas auto-runner game

- Engineered custom collision detection **algorithms** and physics for player movement and seamless gameplay
- Designed snake **movement algorithm** and **custom event listeners** for smooth and responsive UI animation

## PROFESSIONAL EXPERIENCE

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### Marketing Data Analyst

San Francisco, CA

Precision for Medicine

March 2020 - present

- Developed centralized **Power BI** dashboard utilizing **SQL** to streamline execution management for **100+ users** and integrated real-time insights with **DynamoDB**
- Engineered **Python** code to efficiently extract and process **100+ codes** from data lake, integrating into pipeline
- Increased user engagement **20%** using **Google Analytics** to implement customer segmentation strategies

### Quality Improvement Analyst

San Francisco, CA

Department of Public Health, San Francisco

June 2018 - Dec 2019

- Designed **Excel models** to analyze datasets with **100K+ points** with characteristics in operations and fiscal policy
- Produced **PowerBI** dashboards to monitor month-to-month resource allocation by department
- Assessed resource utilization of program serving **500+** persons experiencing homelessness, saving **20+ staff 1.5K+ hours/year**

## EDUCATION

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### App Academy

San Francisco, CA

Rigorous 1000-hour full-stack software engineering course

October 2023

- Topics: React, Rails, SQL, JS, Git, Github, Express, MongoDB, NodeJS, Webpack, TDD, OOP, REST, and security

### Boston College

Magne Cum Laude

B.S. in Molecular Biology | Minor: Computer Science

- Design & Analysis of Algorithms, Database Systems, Information Visualization, Bioinformatics, Statistics

### University of California, San Diego

Incomplete, 2019

Doctor of Medicine Candidate