Allison Colyer - Full Stack Software Engineer

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SKILLS

Programming Languages: Dart, Java, JavaScript, TypeScript, Python, CSS, Sass, HTML5
Technologies and Frameworks: Flutter, React, React Native, Node.js, Express.js, GraphQL, Git, Github, Gitlab, Netlify, AWS, Heroku, CI/CD, Flutter Bloc, REST APIs, Google App Script, yarn, npm, Sentry

EXPERIENCE

Top Hat (formerly Aktiv Learning) | Software Engineer III | August 2020 - Present
• Lead Flutter and Dart developer of Aktiv's organic chemistry app leading to Aktiv's successful acquisition by Top Hat
• Developed a proprietary canonicalization algorithm in Dart to uniquely encode any organic molecule drawn by the user
• Implemented efficient graph searching algorithms for instantaneous automated personalized student feedback
• Architected a library of Flutter canvas widgets that utilize advanced geometric calculations and path metrics
• Led efforts to refactor logic and widgets across multiple Flutter codebases reducing developer workload by 50%
• Wrote over 2000 unit tests with 76% code coverage across all Flutter code bases that are part of Top Hat's CI/CD
• Develop features in Java to validate, store, and deploy JSON content representing Top Hat's question bank to MongoDB

Recurse Center | Participant | January 2020 - June 2020
• Studied data science, machine learning, algorithms, and backend development at a self-directed educational retreat

Novvum | Full Stack Software Engineer | January 2019 - January 2020
• Designed and implemented a GraphQL database schema for Novvum's largest client, Greenlight
• Created Novvum's marketing website using Gatsby, styled-components, React, Typescript and GraphQL

Technovation | Frontend Software Engineer | June 2016 - January 2019
• Utilized a scrum agile workflow to develop and deploy features for thousands of students to submit their work
• Rebranded Django and Ruby on Rails apps using Bootstrap, Sass, and JavaScript to match new branding guidelines
• Authored computer science, electrical engineering, AI, Arduino, and robotics curriculum for high school students

PROJECTS

Feelsbot | www.feelsbot.me
Feelsbot visualizes a city's mood using artificial intelligence based on the Tweets from people there.
• Created a GraphQL server to call IBM's machine learning API to calculate the emotional sentiment of tweets
• Combine data from the Twitter API and Google maps APIs to tabulate the most recent tweets in geographic regions
• **Tech Stack:** React, GraphQL, Node.js, Heroku, Netlify, styled-components, IBM Watson, Vercel, Google Maps API

Recurse Roulette | http://www.alli.science/recurse-roulette
Recurse Roulette allows members of the Recurse Center to randomly pair and video chat with each other.
• Implemented a WebRTC JavaScript library to allow users to share video and audio through a peer to peer connection
• Deployed a signaling server using Node.js that exposes endpoints to match participants and track active users
• **Tech Stack:** JavaScript, Node.js, Express, Heroku, peer.js, Sass, WebRTC

Magic Compass | https://www.alli.science/magic-compass-app/
An iOS and Android Flutter app that features a collection of cute characters to act as a compass needle.
• Created in-app purchases that work with both Google Play's API and the App Store API
• Utilized InheritedWidgets and Provider for state management
• **Tech Stack:** Flutter, Dart, Swift, Java, FlutterCompass, Provider

EDUCATION

The Cooper Union – New York, NY
Bachelor of Engineering, Chemical Engineering
Attended with a full-tuition scholarship valued at $150,000