

# Allison Colyer

Los Angeles, CA

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## EXPERIENCE

### **Aktiv Learning, Software Engineer (acquired by Top Hat in December 2022)** — August 2020 - current

Full-stack engineer specializing in Flutter and Dart

- Lead developer on Aktiv's organic chemistry app, used by hundreds of thousands of students and professors, which was one of Aktiv's most success projects that eventually led to an acquisition by Top Hat
- Created a proprietary grading algorithm for organic molecules based in graph theory and cheminformatics
- Implemented a series of efficient graph searching algorithms to give automated feedback to students
- Created custom Flutter widgets allowing students to draw, interact with, and rotate organic molecules
- Led efforts to refactor and unify code bases across multiple Flutter projects
- Maintained a legacy Java project for converting JSON into a consumable format for Aktiv's front end apps

### **Recurse Center, Participant** — January 2020 - April 2020

Improved frontend and backend skills by attending a self-directed educational retreat

### **Novvum, Software Engineer** — February 2019 - November 2019

Full-stack engineer at a web development agency specializing in JavaScript

- Used Gatsby, styled-components, React, and GraphQL to create Novvum's website to attract new clients
- Collaborated with Prisma, a partner of Novvum, to create the next version of a GraphQL tutorial site, which serves thousands of users, using React, Typescript, GraphQL, and Gatsby
- Designed and implemented a GraphQL database schema for Novvum's largest client, Greenlight

### **Technovation, Junior Software Engineer** — January 2018 - January 2019

Contributed to Technovation's two web applications, used by tens of thousands of students and teachers around the world

- Rebranded the Django platform using Bootstrap, Sass, and JavaScript to match mockups
- Built features for the Ruby on Rails app to allow students to submit their work and receive scores from judges

### **Technovation, Technical Curriculum Developer** — June 2015 - January 2018

## PROJECTS

### **Recurse Roulette** – <https://roulette.recurse.com/>, Demo: <http://www.alli.science/recurse-roulette>

Recurse Roulette allows members of the Recurse Center to randomly pair to chat with each other and share video and audio through a peer to peer connection. This is accomplished using a WebRTC JavaScript library called PeerJS.

Recurse Roulette was built using JavaScript, Node.js, and Express, and is deployed using Heroku.

### **Feelsbot** – [www.feelsbot.me](http://www.feelsbot.me)

Feelsbot visualizes a city's mood based on the Tweets from people there. Feelsbot combines a machine learning API with Twitter and Google maps to assess emotional sentiment of tweets. Feelsbot was built using React, GraphQL, and Node.js. The GraphQL server is deployed using Heroku, and the React app is deployed using Netlify.

## SKILLS

**Programming Languages:** Dart, Java, JavaScript, TypeScript, CSS, Sass, HTML

**Frameworks and Technologies:** Flutter, React, React Native, Node.js, GraphQL, Git, Netlify, Heroku

## EDUCATION

### **The Cooper Union** – New York, NY

*Bachelor of Engineering, Chemical Engineering, May 2015*

*Attended with a full-tuition scholarship valued at \$150,000*