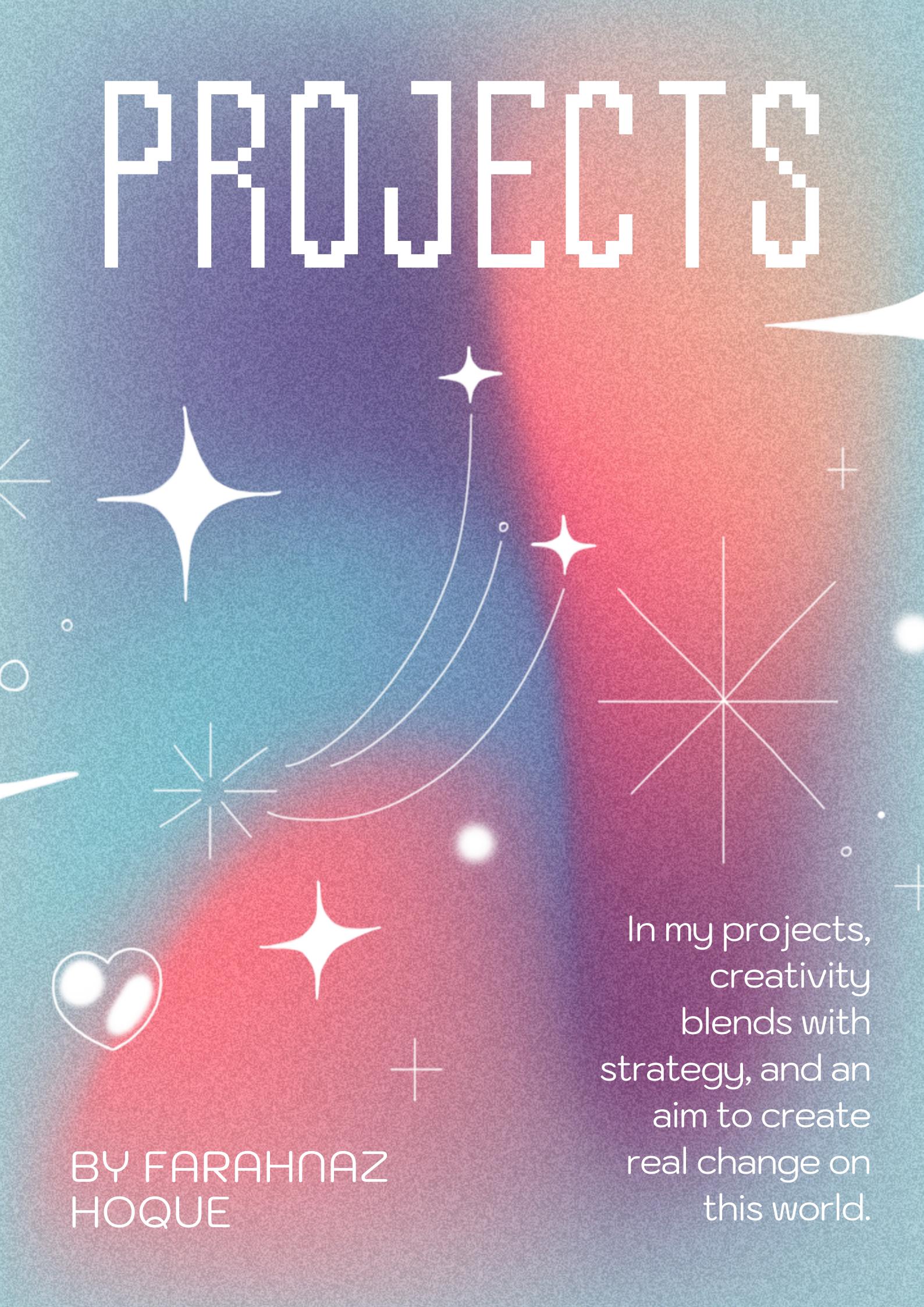


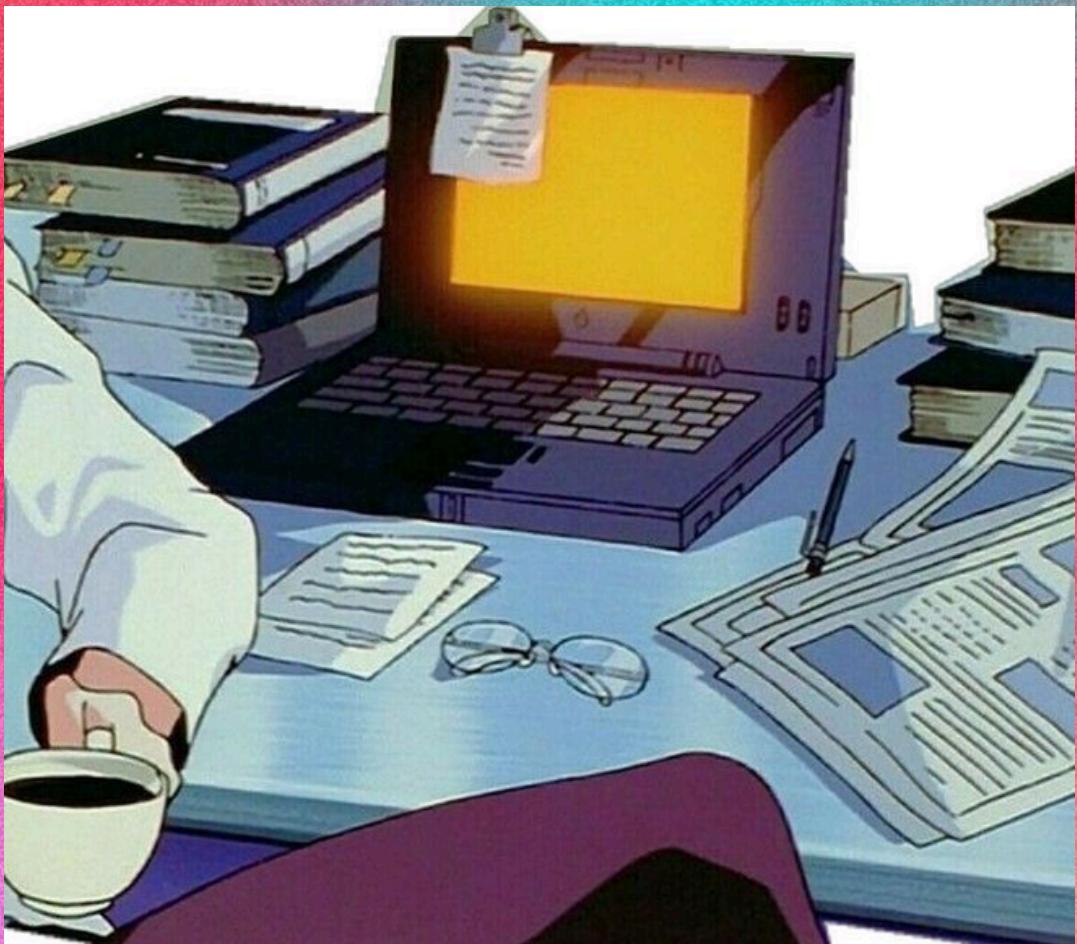
PROJECTS



In my projects,
creativity
blends with
strategy, and an
aim to create
real change on
this world.

BY FARAHNAZ
HOQUE

IN THIS EDITION



2 SafeCircle: A Safety Tracking Application

a mobile application built for ensuring safety of an individual with multiple functionalities integrated

4 MoonbinTunes: A Website for finding statistics about your favorite song, album, artist

a web application integrated with user's spotify to get their desired statistics

6 ICS Search Engine

a search engine made through web crawling all ics pages to help find specific pages needed by the department

8 Incoming: Agentic AI Programming Tutor

an ai tutor that, once provided an excerpt, creates coding exercises to help user have a better understanding of the excerpt

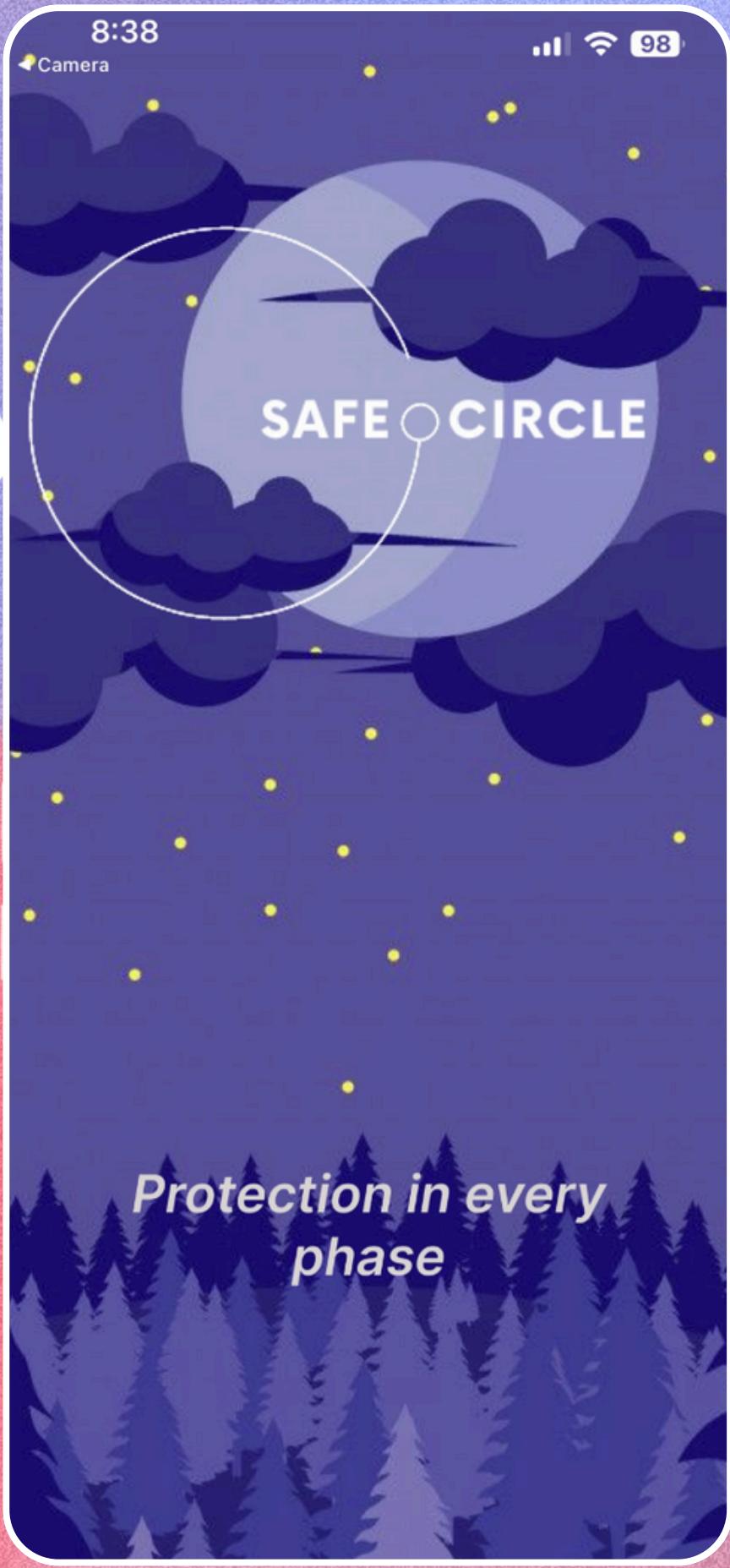
10 Incoming: 4D Gaussian Splatting: Structure from Motion

a real-time ai that once users feed media to can create a 4D image of the media

12 Incoming: Young and Hungry: The Website

a podcast for the Young and Hungry Podcast by Dr Sean Young

SAFE CIRCLE



2

SAFECIRCLE

A Safety Tracking App

Inspiration

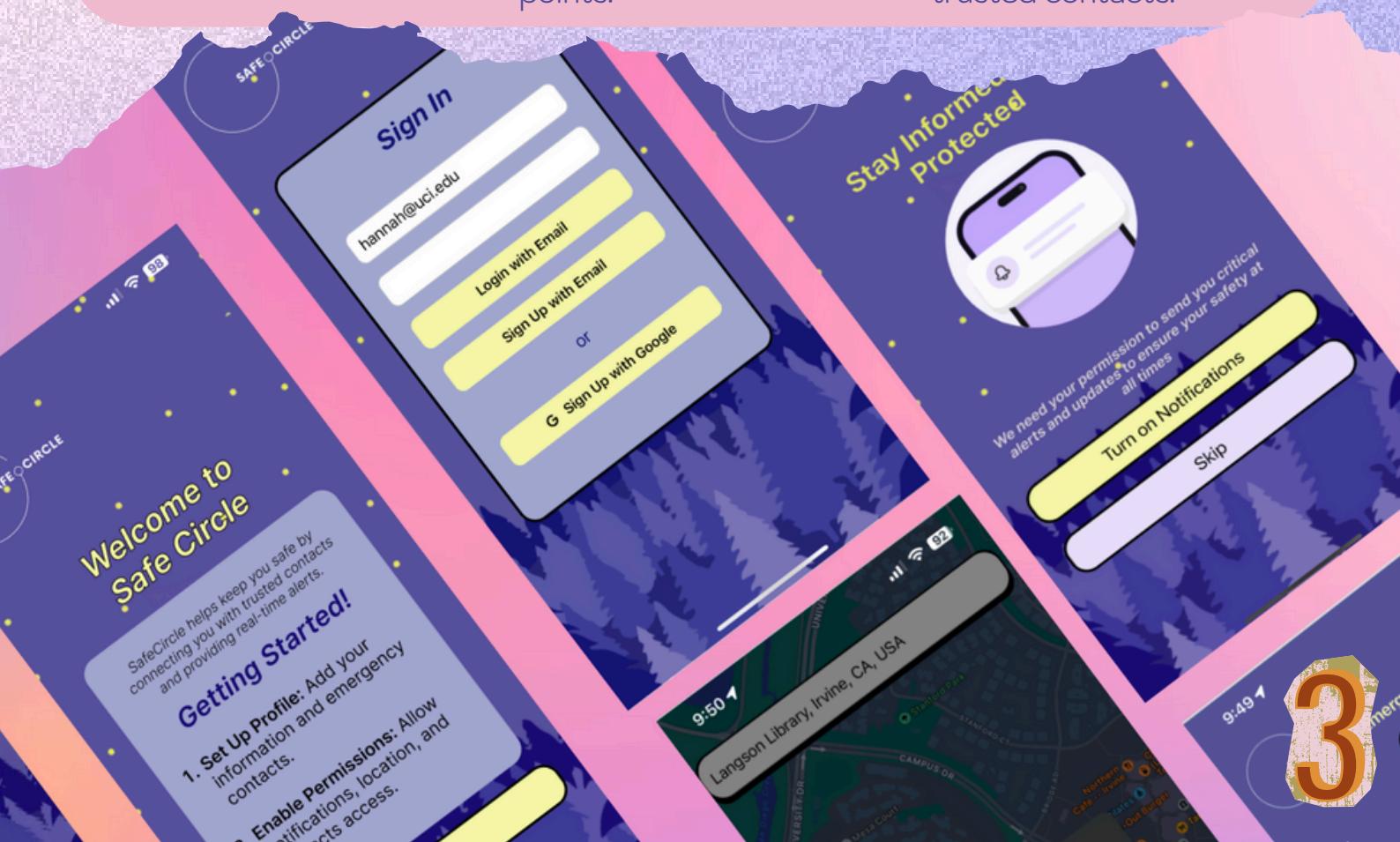
As four women who frequently commute home late at night from classes and work, we developed an instinctive understanding of the hyper-awareness and unease that often accompanies those walks to their cars or homes after dark or in secluded areas. No one should have to feel that way. This realization led to the creation of SafeCircle: a safety-tracking mobile application designed to provide peace of mind and security with features that promise the safety we often seek.

The features

- Users can search up routes from the application and use features similar too Google Maps to navigate to desired location.
- If deviated 500 meters from the designated route, the user and their pinned contacts (done through the application) will be notified.
- A red SOS central button when clicked will prompt the user to call 911 (will change numbers based on location of country) or text them with their current axis points.

How we built it?

We built SafeCircle using **React Native** for cross-platform compatibility, ensuring a seamless user experience on iOS devices. **Google Firebase** provides a robust backend for real-time data handling and authentication. We used **Expo** to streamline the development process and facilitate rapid testing. The **Google Maps API** enables precise location tracking, and we integrated contact sync functionality to make it easy for users to connect with their trusted contacts.



MOONBURN TUNES

MOONBIN TUNES

A Music Stats Website

Inspiration

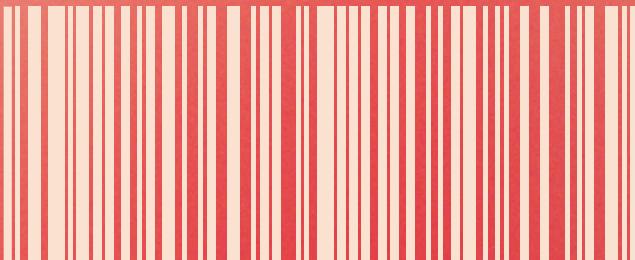
As music lovers, my friend and I wanted to create an intuitive and engaging way to explore Spotify's vast music library while applying our knowledge of API integration and frontend development. This project allowed us to design a user-friendly platform that enables seamless music discovery, making browsing artists, albums, and tracks both dynamic and enjoyable.

The features

- Artist, Album, and Track Search:** Users can search for their favorite artists, albums, or tracks and navigate through detailed pages displaying relevant information.
- User Profile & Top Tracks:** The homepage provides personalized user information retrieved using Spotify's API, including their profile picture, display name, and top tracks.
- Interactive UI with Carousels & Tables:** Search results are displayed using Bootstrap-powered carousels for artists/albums and dynamic track lists with sortable data for a smooth user experience.

How we built it?

We built this project using **Angular** for the frontend, **Node.js with Express** for the backend, and **Spotify's API** for data retrieval. **OAuth** authentication ensures secure user login, while Bootstrap enhances the UI with responsive and visually appealing components. The backend handles API requests efficiently, allowing the Angular client to fetch and display music data dynamically.



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**COMING
SOON**