

# Ascot

## *Microforest Connect* Project

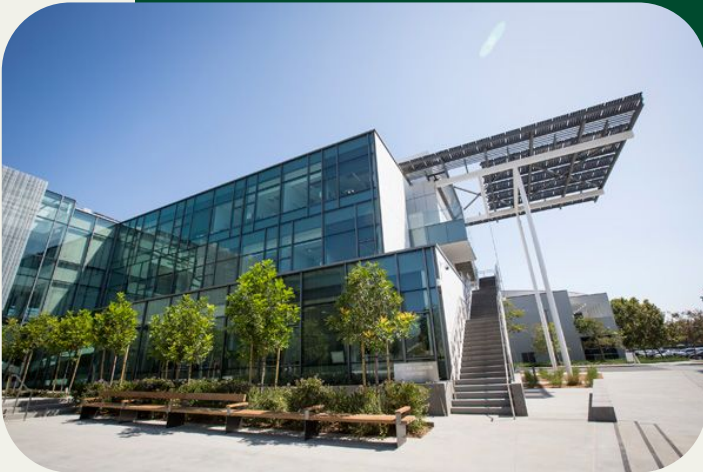
Nolan Nguyen



# Project Overview

## Description

The Ascot Microforest Connect project, headed by Dr. Demian Willette, aims to engage communities to plant microforests and track their impact on the environment through statistics such as carbon dioxide sequestration.



# What are Microforests?

## ■ Definition

Densely organized native plant life that mimics a natural ecosystem.

Objectives: biodiversity, air and water quality, anti-erosion, protect native plants, education...



# Three Components...

## **User Data Entry Portal**

A mobile and web app that will allow teachers, students, and visitors to record plant growth and contribute data to individual microforests.

## **Administrator Portal**

For administrators managing their microforests, this web portal will allow them to view their microforest at-a-glance and manage users.

## **Microforest Connect Interface**

An interactive data-visualization interface that represents microforest data on a dynamic map.

# User's POV

## User Data Entry Portal

As a **student**, I want to **track the growth** of my school's microforests so that we can **compete** with surrounding schools.

I'll scan the **QR codes** of the trees in my microforest and **log their heights and diameter** to accurately represent the amount of carbon dioxide it's absorbing from the atmosphere!

## Administrator Portal

As an **administrator** in charge of a microforest, I want to see its **data at-a-glance** and **manage users** so that I can ensure data is being collected **consistently and accurately**.

I'll **flag suspicious accounts** and entries to **prune malicious actors** and assist with any account-related issues within my community.

## Microforest Connect Interface

As a **curious observer** of a nearby microforest, I want to **search for and identify** the same forest online so I can **track its impact** on the environment.

I'll visit the Connect interface to see this data and **compare it with surrounding microforests** around the LA region and eventually, the world!

---

# Why am I Interested?

---

## ■ Concept & Subject

I resonate with the idea of allowing communities to see how much they're benefiting the environment and encourage the proliferation of micro-forests around the world.

## ■ Interdisciplinary Connection

I've always wanted to collaborate out of the computer science department on a project that combines both technical expertise with the subject matter of another school/major.

## ■ Project Format

The Ascot Project codebase is in a familiar format to me, where I believe I do my best work. I feel like I have much to offer this project!



# Technologies

## ■ React (Intermediate exp.)

JavaScript web framework for the Admin portal and Microforest Connect interface.

## ■ React Native (No exp. but it's still React)

JavaScript mobile framework for the data entry app component.

## ■ Firebase (Intermediate exp.)

Database service for containing microforest data entries.



# Thank You!

Any Questions?

