Background & Motivation

Pathways is a web app designed to help high schoolers or prospective college students make an informed decision when choosing schools. The app allows the user to select multiple filters and returns a list of colleges that match.

Users can quickly explore detailed information about a college, making it a favorite or saving their search parameters. Ideally, Pathways is a one-stop-shop for high schoolers as they can build a degree path and be routed to admissions pages for their selected colleges.

Application Requirements

- Be a fast and responsive web interface for devices of any size and architecture
- Allows users to create and build a profile by favoriting colleges and saving search filters
- Implement a variety of filters for searching
- Create a static Degree Planner Tool template
- Implement a fast, scalable, reliable database

Database Design

MySQL holds all college and user data. The average search query runs in .01 seconds. This database must scale to hold every major of every college in the country. Table relationships were decided carefully with scaling in mind. Images are stored on the web server while Firebase Login manages sessions and passes user id’s to MySQL.

Fast and Easy

- Match Rating at a glance
- Transfer to Admissions
- Quick Description
- Social stats from your High School, City, State
- Transfer to Pathways
- Tuition statistics
- Admission statistics
- Population statistics
- College Favoriting
- Institution Themed Cards
- Admissions Address
- Side by Side Comparison

Technology Stack

HTML, JS, CSS, Bootstrap 4, jQuery, Flask, PXRE, Python, MySQL, Firebase

Future Work

- Add regional major tables to increase scalability of the Majors table. Narrows query by region.
- Add Career Path dropdown allowing students to explore majors by job interest.
- Pathways AI enabled Degree Planner: a tool for prospective students to plan a degree pathway.
- Make Pathways an IOS/Android application.

Acknowledgements

The developers would like to thank VCEA IT support for their help in the security of metis.eecs.wsu.edu. Dr. Aaron Crandall’s project management guidance was critical.

Team Metis

Joshua Feltman, Matthew Johnson, Michael Krogh, Luke Seo