Engineering Gallery

Team NVC:
Nicholas Frangos, Vignesh Thyagarajan, Chi-Ho Wong
Problem Statement

• Passionate engineers need a place to showcase their work
  • Both personal and professional projects
• How can we connect the engineers of the world through their similarities and differences?
• How can we benefit the engineering community through this platform?
Product Objective

• Allow engineers to showcase their talent
• Act as a professional portfolio for users to reference
• Serve as a means of inspiration for users viewing content
• Bring creative and clever implementations/creations to the spotlight in a visual manner
Main Features

- Public and private posts showcasing engineering projects
  - Images
  - Text
- Easy way of feedback for projects
  - Comments section
Main Features (continued)

- Customizable user accounts with easy to share URL
  - Profile picture
  - Profile description
  - Contact information

- Standardized tags to categorize projects for easy searching
  - Checkbox engineering field upon creation
**MVC Architecture**

*Model*
- Model to take and store data from users like login details, profile details
- Model to process data/projects posted in the form of images, videos, text, audio
- Model for commenting on posts and being able to like/share posts
- Model for tagging posts, making them subject specific, etc.

*View*
- View that displays homepage; page with a form to create an account or login
- View that displays user profile, etc.
- View that allows for posting, title of post, description of post, and any attachments of the post
- View to see other users posts in a news-feed like page, make comments

*Controller*
- Controller to help output user data to the view after it has been posted
- Controller to help log the user in after they enter their details
- Controller to publish posts and sort by tag
UML Sequence Diagram

Create Project Post

Post View

Title, Description, Attachment Fields

Database

select

notify

display various fields

enter required info

set text, etc.

store info

display and confirm
Entity Relationship Diagram (ER)
Relational Schema
Project Demo

See Appendix for screenshots
Postmortem

• Functions that we wanted to implement but couldn’t include
  • Private messaging between users
  • Post privacy, hiding posts

• Issues we ran into
  • Version control issues
  • Active Records with relations
  • Using PostgreSQL to deploy to Heroku
  • Ruby in general
Appendix -- Screenshots

Engineering Gallery

Welcome Home!

Engineering Gallery -- A place to catalog and share your hard work.

News
May 15, 2017 -- There is a chance we might present today

Recent Projects

<table>
<thead>
<tr>
<th>Title</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Motion Detector</td>
<td>3</td>
</tr>
<tr>
<td>SRE Racecar</td>
<td>2</td>
</tr>
<tr>
<td>Contactor Panel</td>
<td>1</td>
</tr>
<tr>
<td>Bluetooth Speaker</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix -- Screenshots

**Engineering Gallery**

**Project Title:** My Motion Detector

**Project Description:**
I constructed a motion detector for CmpE 110. I used PIR motion sensors to send a digital signal to an Arudino UNO. Based on the received data from the sensors, the connected piezo buzzer will play a sound.

**Attachment:**

<table>
<thead>
<tr>
<th>Commenter</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:thedude@email.com">thedude@email.com</a></td>
<td>Hope you like my project!</td>
</tr>
<tr>
<td><a href="mailto:theguy@email.com">theguy@email.com</a></td>
<td>Nice Post!</td>
</tr>
</tbody>
</table>
Questions?