

# **Handprinter**

## **Executive Summary**

### **Community Partner**

Gregory Norris

### **Student Development Team**

Jennifer Jin

Chiamaka Nnebe

Javed Ramjohn

Mark Vella

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## **Background**

The Handprinter project seeks to inspire positive environmental impact by allowing people to monitor their environmental contributions and spread new sustainability ideas to the world. Carbon footprints measure negative environmental impact stemming from actions by an individual or group. Instead of only providing a negative appraisal of one's impact on the environment, the Handprinter project also measures positive contributions to the environment, called handprints. Together, handprints and footprints provide a holistic understanding of environmental impact by an individual or group. Handprinter seeks to encourage people to come together and share, collaborate on, and adopt ideas that aim to show that the world is better off with humans than without them.

## **Project Description**

### **Project Opportunity**

Our client, Gregory Norris, who founded Handprinter, wants a platform for people all over the world to share and collaborate on handprint ideas. In order for such a platform to work, it needs to be user-friendly and accessible to anyone; otherwise, handprinting will not be accessible to a global population. This, in turn, will not help the organization achieve its core mission. Our team realized that a user-friendly interface to view, submit, collaborate on, and manage handprint ideas would set the stage for widespread creation and collaboration of handprint ideas.

### **Project Vision**

Our team set out to build an interface for leaf users (non-expert, average users). The interface would be a responsive web application that allows anyone to submit ideas at any time, with ease. Key areas of functionality included: the ability to submit a new idea and options to browse, comment, and vote on ideas. Ensuring all of these actions would be usable, while providing feedback that allowed users to understand the positive impact he or she makes through contributing guided our design process. We aimed to develop an application that educates users on handprinting, encourages them to contribute, and allows them to contribute with ease in a mobile and desktop environment.

## Project Outcomes

The team developed a responsive Django web application with a PostgreSQL database hosted on Heroku. Visitors can view all ideas on the application and learn about Handprints. Registered users can submit ideas, vote on ideas, and comment on ideas. Seven user tests were conducted to gain feedback on the usability and perception of the application. Now, the Handprint organization has a fully functional application that allows people to submit ideas and discuss them. This completes the first part of the Handprinter ecosystem and paves the way for reaching the organization's mission of having people submit and adopt ideas globally.

## Project Deliverables

Our application is currently hosted on Heroku. Ownership of the application's Github repository was transferred to the client. We provided the client with tutorials on administration features. Extensive documentation was given to the client, including the team's requirements document that contain a history of all work performed, technical notes about areas of improvement and further work, a testing plan, user testing notes, and the user testing script used. Finally, the client was given the training and information needed to manage the Heroku account for the application.

## Recommendations

We recommend that future developers conduct further user testing with a diverse sample of participants to ensure the application is usable by all segments of the population. Furthermore, we recommend that future iterations of the application incorporate in-app notifications to notify users when their ideas have been voted or commented on. Social media integration will allow users to share their idea with their friends and allow the application to gain greater visibility. A reward system based on performing actions, such as submitting a new idea, will help retain community members. Finally, we recommend that future developers test the application's responsiveness on a variety of different platforms to ensure compatibility.

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## Student Development Team

**Jennifer Jin** led development as the project's technical lead. She is a third-year student in information systems with an additional major in statistics and a minor in business administration. Jennifer will be interning at Wayfair this summer and is pursuing a career in data science.

**Chiamaka Nnebe** served as the project's design lead. She is a third-year information systems major and is pursuing a minor in business administration. Chiamaka will be interning as an application developer for Credit Suisse this summer and is pursuing a career in financial services.

**Javed Ramjohn** contributed as the team's documentation lead. He is a third-year student in information systems with an additional major in policy and management. Javed will be interning at Avis Budget Group this summer in e-commerce and is pursuing a career in cyber security.

**Mark Vella** was the project manager and also served as the team's client advocate. He is a third-year student in information systems with two minors in business administration and intelligent environments. He will be interning this summer at Apple, Inc. as a technical product manager.