

# **Origin of the Idea**

TreeSap was built to allow nature enthusiasts to identify and understand the value of trees throughout the Holland, Michigan area. Using data collected by Hope College and the City of Holland, users can identify trees via their current location, manual coordinate entry, map, and QR code. Additionally, users can add their own trees to the database and have their trees reviewed and approved by trusted curators.

### **Development Process**

Several tools were used throughout the project. Listed below are some of the most frequently used tools.

	Xcode	The standard IDE for iOS, w macOS developm
	Pivotal Tracker	Facilitated the agile developments of the process through task matrix
9	Sourcetree	Allowed for easy version branch visualizat
i-Tree,	i-Tree	Provided the data for ne benefit calculation
	Google Firebase	Allowed for the storage an user-generated tree

## Acknowledgements

Hope College • Hope College Computer Science Department Hope College Biology Department • City of Holland Dr. Kathy Winnett-Murray • Dr. Greg Murray Dr. Mike Jipping • i-Tree





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## **Tree Identification**

Users can identify trees via four different methods: current location, manual coordinate entry, map, and QR code.



# **Tree Details**

When the app identifies a tree, users can view the details of the tree in three different ways: a general overview, benefit pie chart, and benefit cereal box display.

# **Overview Pie Chart** Map **Annual Tree Benefits** Sugar Maple CO<sub>2</sub> sequestration Runoff avoided Avoided emission: 🕨 Pollution removed 🛛 🔵 Enerav savinas Total: \$34.00 🕨 Heating 🔵 Cooling



# TreeSap for iOS An App Bringing People to Trees

Jonathan Chaffer & Josiah Brett • Hope College



Users who create a TreeSap account are able to add their own trees to the database. The app guides users through the submission process, allowing them to add images, notes, and other information. Submitted trees are then reviewed by trusted curators to ensure that the data is accurate.



Users can adjust various app preferences, view notifications from curators, and adjust their account settings. Additionally, curators can appoint other curators via email.



Future versions of TreeSap could include the ability to add notes and images to existing trees, as well as the ability for curators to edit pending trees before accepting or rejecting them.

For more information, contact: Dr. Mike Jipping 616.395.7509 jipping@hope.edu

# Adding Trees

## **Other Features**

	Notifications		Account		
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# **Future Work**