External Projects for Seniors

InternYourself

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Cement and Aggregate Inventory Counting
Description of the problem/goal

• The cement and aggregates industry have always needed to know the inventory that they have.
• How many Tons do I have of cement, aggregate, clinker, etc?
• The drone service costs 30K a year. This is overpriced!
Motivation for the problem/goal

- Reduce the price and get rid of the drone by using the power of computer vision.
By using multiple video cameras, around the plant, and computer vision it will be possible to know the inventory that is in the ground.
Knowledge and skills that might be needed

• Need to know some machine learning tools
• Computer Vision
• Math skills, especially trigonometry
• *Highly suggest to work with a civil engineer.
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Storage Room for college students
Description of the problem/goal

• At the end of the school year students need to move dorms. This causes storage problems as students do not have a place to leave their belongings during vacations.
Motivation for the problem/goal

• Build a platform, FloridaTech community only, where members can share their extra space as storage.
• Students that live of campus have an extra space in their house, provide storage place for on campus students.
Desirable general approach to the problem (if applicable)

• Start by building a simple minimum valuable product UI where it is possible to see the places around campus that you can use storage.

• Have two type of accounts, host and student.
Knowledge and skills that might be needed

• Web application knowledge,
• Database knowledge, SQL
• Good UI
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Ingine
Description of the problem/goal

• Ingine is using virtual reality in order to create guide maps in museums. They need a geolocation functionality where the user can open a certain file based on his/her location.
Motivation for the problem/goal

• Create a better user experience and get rid of the museum tour guide. The geolocation functionality will be adapted with the Ingine platform.
Desirable general approach to the problem (if applicable)

- Develop a minimum valuable product where it will be possible to use your phone to open a file based using your geolocation.
Knowledge and skills that might be needed

• Web application knowledge
• Geolocation tool
• Cross platform or native development for mobile apps (swift vs android studio, Xamarin, etc)
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