Emmanuel Eppinger

CMU SCS '21

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Summary

- Carnegie Mellon School of Computer Science (SCS), Class of 2021
- Developed patent-pending method of covering reservoirs to prevent evaporation in drought ridden areas at factor of 10 less cost
- Modeled gentrification in real time (monthly) using Zillow housing data
- Developed method for measuring location on CMU campuses using WiFi metadata

Education

Carnegie Mellon School of Computer Science, May 2021

Bachelor of Science in Computer Science, Minor Language Technologies (Intended)

Relevant Coursework:

Great Theoretical Ideas for CS (15-251)
Parallel and Sequential Data Structures and Algorithms (15-210)
Grammars and Lexicons (11-421)
More Great Theoretical Ideas for CS (15-252)
Probability Theory for Computer Scientists (36-218)
Principles of Functional Programming (15-150)

Extracurriculars:

CMU Varsity Swimming: Scoring Championship Team Member, 3-time AMS Scholastic All-American, 5-time Speedo Sectional Series Finalist
NAQT Quiz Bowl: part of 9th ranked team in US in 2017, 8th Individual at PA State Championship 2015
CMU Community: Orientation Counselor 2018

Experience

PixelAi / Machine Learning Intern

(Upcoming) May 2018 - August 2018, Pittsburgh

CMU SCS's Institute for Software Research: Mobile Commerce Lab / Web Developer

June 2017 - August 2017, Pittsburgh

Developed method for measuring location inside of buildings on CMU campuses using WiFi point metadata, allowing for more accurate location measurement inside buildings where normal GPS is inaccurate under normal circumstances.

CMU SCS's Robotics Institute: Personal Robotics Lab / Intern

June 2016 - August 2016, Pittsburgh

Intern at the Personal Robotics Lab in the CMU SCS Robotics Institute. Used ROS to complete projects in Shared Autonomy and Human Computer Interactions using machine learning and facial recognition. Programed Home Exploring Robotic Butler (HERB) to complete Yale, Carnegie-Mellon, Berkley (YCB) task in table cleaning.

Projects

Passive Self-Tessellating Unit as Cost Efficient Reservoir Cover

goo.gl/LhvchB

Developed cost efficient reservoir cover for drought stricken and water scarce areas to reduce water loss due to evaporation. Solution costs one tenth of current comparable solutions. Achieved this by designing a self-assembling reservoir system with no moving parts nor electronic components. Patent Pending

Using Zillow Housing Data to Identify and Predict Gentrification

goo.gl/1bUoLQ

Developed a unique Gentrification Index that quantifies gentrification in a geographical region. Allows for gentrification to be identified historically and potentially allow for gentrification to be identified as it occurs. Recognized by Allegheny County Executive: Rich Fitzgerald, Pittsburgh Dataworks, Pittsburgh Supercomputing Center, CMU SCS, and IBM Watson Research Lab

Github: Onestop Website for Complete Concert Experience Booking

github.com/aneekm/TartanHacks18

As part of team working on Tartanhacks 2018, built Github, a website that allows for complete concert experience from tickets to hotels to transport in fewer than 5 clicks

Patents

Embedding Ads into User-Generated Content in Real-Time (Provisional)

Allows users to experience ads in a more natural way by allowing the branding of one company to be swapped for that of another in images

Using Capacitor for Dielectric Transport (Provisional)

Potential application in boat motor with no moving parts

Passive Self-Tessellating Unit as Self-Assembling Reservoir Cover for Evaporation Reduction in Drought-Ridden Areas (Provisional)

Allows municipalities to cover reservoirs to reduce evaporation a one tenth the cost of similar methods

Programming Skills

Standard ML, Python, Java, C, ROS, Linux, flask, git