

THERESE M. DIEDE

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projects

SKYSCRAPER-GO! • Learn the SF skyline. Collect all the tall buildings.

Users create and collect trading cards of their favorite SF skyscrapers. A map instance of Mapbox GL displays geographical markers for each building entry in PostgreSQL. On click, an AJAX request returns data from the Python/Flask server to produce graphic material for trading cards: text description, user comments, a Chart.js bar chart, and a randomly selected Flickr photo from metadata in MongoDB.

ADU TOOLKIT • Accessory Dwelling Units: Explore their construction.

San Francisco's residential crisis looks to architecture for a minimum viable living condition. What can property owners construct to add capacity to their lots? This app guides users through various design and material implications.

PACK THE BOX • Python packs a container using random placement.

You have a container. Given a series of items of the same size and shape, what space efficiency can be achieved by randomly selecting an x,y coordinate at which to place each item inside the container? User inputs parameters. Turtle graphics package visualizes the packing process. The script calculates the resulting space efficiency, along with number of consecutive attempts to place an item before predefined max limit reached.

PARAMETRIC REALIZATIONS • Scripted geometries in architecture.

Using RhinoScript, I automated a series of designs for bas-relief plates. A CNC machine then took the digital instructions and drilled a set of plates in wood as prototypes. The script was based on a random number of pull points along the plate circumference and a z-depth dimension.

MASTERS THESIS •

Modal Shift to Vélib' Bike Share: A Cognitive Mapping Approach

UNDERGRADUATE HONORS •

The Transformation of Urban Space: A Comparative Analysis of Gentrification in New Orleans and San Francisco

work

Architecture + Structure, Designer | WARE

Apr 2015 - Jul 2016 • Oakland

- + High-end residence (Atherton)
- + Park shelters (Mt. Umunhum)
- + Floating pool concept (bay/lake)

Interior Architecture, Designer | SOM

Nov 2014 - Mar 2015 • San Francisco

- + Moscone Expansion (SoMa)
- + SF VA Medical (Lands End)
- + A tech campus (Mountain View)

Lead Cartographer + 3D Visualization Artist

| Rowan Technology

Jul 2013 - Oct 2014 • New York

- + Strategized how to produce in less than 9 months: 500+ maps for a digital interactive textbook concurrently used by West Point cadets.
- + Generated in-depth feature assets, including 3D terrain fly-throughs, battle diagrams, infographics, and data visualizations.
- + Coordinated many moving parts with publisher and client on print book layout, orchestrating graphics and maps for 3 feature gatefold spreads.

objective

Hello! I am a software engineer passionate about building tools to solve challenging problems. Previous experience in coding comes from architecture, urban planning, and spatial data analysis.

technologies

back end

Python, Ruby, SQL

front end

JavaScript, jQuery, AJAX, Jinja, HTML, CSS

frameworks

Flask, Angular.js, React.js, Node.js, Bootstrap

databases

PostgreSQL, MongoDB

os + tools

Linux, Git

data analysis

GIS, SPSS, R

3d modeling

CAD, CNC, Rhinoceros/Grasshopper, 3dsMax, V-Ray

design

Illustrator/Photoshop/InDesign, After Effects, Sketch

education

HACKBRIGHT ACADEMY | SF
Software Engineering • 2016

COLUMBIA UNIVERSITY | NY
Master of Architecture • 2013
M.S. Urban Planning

TULANE UNIVERSITY | NOLA
B.A. Sociology, Envir. Science
Magna cum laude, Senior Scholar

volunteer

Studio + Tools | The Crucible