

THOMAS SHOULER RESUME

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WORK

RICHARD / ARUP

MAY 2015 - PRESENT

"Richard" is a full stack Python web application built to address at scale the analysis & design piece of a common structural engineering workflow.

- + Initiated and delivered entire project with complete autonomy
- + Drove adoption to current use by multiple project teams delivering structural engineering services for a \$10B, 6,000,000 sq-ft airport in Mexico City
- + Key underlying technologies include Celery, Flask, Highcharts, jQuery, MySQL, Oasys GSA, Polymer, and SQLAlchemy
- + Responsible for the design and full stack development of the project

POLYTHREAD PAVILION / ARUP

NEW YORK, USA

SEP 2015 - FEB 2016

PolyThread Pavilion is a gallery installation completed with Jenny E. Sabin, commissioned by the Cooper Hewitt Smithsonian Design Museum.

- + Executed suite of empirical studies with autonomy to develop material models for different textiles
- + Managed relationship with client from contract negotiation to project completion
- + Responsible for the management and delivery of the project's structural engineering and material analysis scope with guidance from senior staff

HELLO, GSA / ARUP

MAR 2014 - MAY 2015

"Hello, GSA" is a full stack Python web application built as a proof of concept to demonstrate more scalable methods of visualizing structural analysis and design data for larger, complex buildings projects.

- + Researched existing adopted measures of data visualization alongside new methods of working with different technologies
- + Solicited global leadership to secure funding for development of project
- + Key underlying technologies include Canvas, Flask, jQuery, MongoDB, Oasys GSA, three.js, and WebGL
- + Responsible for the design and full stack development of the project

GRASSHOPPER LIBRARY / ARUP

JUN 2014 - PRESENT

This project is a code block library for a visual algorithmic modelling platform, Grasshopper, which is widely adopted by the building industry.

- + Built wrappers around APIs of common industry software and formalized into visual I/O blocks, which staff rapidly assemble into throw-away algorithms
- + Responsible for the design and development of the code block library

EDUCATION

CORNELL UNIVERSITY

MEng, Structural Mechanics and Materials
GPA = 3.92

AUG 2011 - MAY 2012

CORNELL UNIVERSITY

BS, Civil and Environmental Engineering
GPA = 3.42

AUG 2007 - MAY 2011

TECHNOLOGY

ACTIVELY USING:

Bash	Oasys GSA
Flask	Python
Grasshopper	MySQL
HTML/CSS	Rhinoceros
Javascript	SQLAlchemy
jQuery	

FAMILIAR WITH:

D3.js	Polymer
MongoDB	Three.js
Adobe Illustrator	
Adobe Photoshop	
Adobe Indesign	

AWARDS

ARUP REAL BIM AWARDS 2014
TECHNOLOGY CATEGORY WINNER

ENR AWARDS 2013
GLOBAL BEST SMALL PROJECT

ARCHITIZER A+ AWARDS 2013
STUDENT DESIGN/BUILD WINNER

ROLBAND FELLOWSHIP 2012
CORNELL UNIVERSITY

KENT FELLOWSHIP 2012
CORNELL UNIVERSITY

ETC

PROFESSIONAL ENGINEER 2014
STATE OF CALIFORNIA

VARSITY CROSS COUNTRY 2008
AND TRACK+FIELD -2011
CORNELL UNIVERSITY