

SELENA ZHEN

SELECTED WORKS

EDUCATION

CARNEGIE MELLON UNIVERSITY

Bachelors of Architecture, 2020
Minor in Human Computer Interaction

INDIANA ACADEMY FOR SCIENCE, MATHEMATICS, & HUMANITIES

Academic Honors Diploma, 2015

SKILLS

DIGITAL

Rhinoceros 3D
Sketchup
AutoCAD
Revit
3DS Max
V-Ray
Grasshopper

ADOBÉ SUITE

Photoshop
Illustrator
InDesign
Premiere Pro
After Effects
Dreamweaver

UI/UX DESIGN

Sketch
InVision
Figma
Prototyping
User Research
HTML/CSS
Python

ANALOG/FABRICATION

Drawing
Drafting
Model-Making
Laser Cutter
Woodshop
3D Printing
Photography (Digital)

RECOGNITION

STEWART L. BROWN MEMORIAL SCHOLARSHIP, 2019

Recognized for professional promise as measured in both attitudes and scholastic achievement. Juried by AIA Pittsburgh.

AIA PENNSYLVANIA STUDENT AWARD, 2019

Recognizes the exceptional scholastic achievement and future architectural promise of a graduating student.

ANDREW CARNEGIE SOCIETY SCHOLAR, 2019-2020

Scholars represent an embodiment of CMU's high standards of academic excellence, volunteerism, leadership and involvement in student organizations, athletics or the arts.

INDIANA ARCHITECTURAL FOUNDATION, 2018

For academic excellence as an architectural student.

EXPERIENCE

UX DESIGNER

June 2019 - August 2019

MEDIAMATH, NEW YORK, NY

Worked with the UX Design & Research team to define a new visual design system for MediaMath's new platform direction. Included creating style tiles, component and pattern iteration, desirability study research (to validate direction with stakeholders), and a final Design System via Invision DSM.

TEACHING ASSISTANT

Jan 2018 - May 2018, Jan 2019 - May 2019

SCHOOL OF ARCHITECTURE & IDEATE, CARNEGIE MELLON UNIVERSITY

Provided in-class instruction and assistance to students for each course. Courses: Digital Media (2018), Learning about Learning (2019)

EXPERIENCE DESIGNER

June 2018 - August 2018

BLUECREW, SAN FRANCISCO, CA

Redesigned and refocused BlueCrew's user experiences by creating mockups, branding guidelines, and prototypes. Aligned with the app developer team to iterate on user interfaces and user interactions.

FRONT-END DEVELOPER & GRAPHIC DESIGNER

June 2017 - August 2017

ZINC TECHNOLOGIES, SAN FRANCISCO, CA

Redesigned and redeveloped Zinc.io, PriceYak, Subtotal, and Lionfish product websites. Commissioned to redesign website and app UI, reimagine branding, and create logos.

LEADERSHIP

AIAS NATIONAL ADVOCATE

May 2019 - Present

AMERICAN INSTITUTE OF ARCHITECTURE STUDENTS (AIAS)

Working towards forming an awareness of "empty activism" and its potentially negative impacts, as well as to create a positive movement around actionable activism. Previously served as **Treasurer (2016-17)**, **Vice President (2017-18)**, **Chapter President (2018-19)**, **AIA/YAF Liason (2019)** for AIAS CMU Chapter.

FINANCE CHAIR - BEAUX ARTS BALL

August 2017 - Present

BEAUX ARTS BALL COMMITTEE, COLLEGE OF FINE ARTS

Directing and overseeing the planning of the Spring 2020 Beaux Arts Ball for the College of Fine Arts. Previously served as **Associate Chair (2017-18)**.

CARNEGIE LEADERSHIP CONSULTANT (CLC)

August 2019 - Present

CARNEGIE LEADERSHIP CONSULTANTS, CARNEGIE MELLON UNIVERSITY

Collaborated with fellow CLCs to improve and empower student leaders. CLCs are students who have been trained in leadership development and facilitate peer-led leadership training to students across campus.

TECHNOLOGY TRACK CHAIR

August 2015 - March 2016

AIAS 2016 NORTHEAST QUAD CONFERENCE, PITTSBURGH, PA

Planned and organized a national architecture conference with 500+ attendees.

UI/UX WORK

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MEDIAMATH

An overview of the Design System created for MediaMath during Summer 2020. Includes typography, page interaction, form components, and mockups to test the Design System.

8

BLUECREW

A collection of work designed and created for BlueCrew during Summer 2019; includes mobile experience + interaction designs, branding + advertisement products, and a complete style guide.

12

DATA MECHANICS

A small project for a start up (Data Mechanics), includes a landing page build, custom assets, typography direction, and simple logo guidelines.

DESIGN

14

BIOTECHNOSPHERE BATHROOM

A built installation space that fosters mutualistic interactions between human and fish.

16

LUNAR GALA - SURFACE

A 10-piece fashion line for the Lunar Gala 2018 Fashion Show. SURFACE explores the issue of the distortion and trivialization of the human body into objects of desire.

18

SHAKE SHACK ANIMATION

A combination of modeling and animation used to create a playful representation of a Shake Shack meal.

ARCHITECTURE

20

HIGH RISE 'UNTITLED'

A project looking at the role of the architectural promenade and how it can be adapted to the typology of the high rise, using Donald Judd's writings and artistic outputs as intellectual and inspirational ideas for concept.

24

NEW EXPERIMENTAL THEATER FOR NYC

An experimental theater for the World Trade Center Performing Arts Center, tackling the same site, program and constraints as those of the professional design team, with a focus on human experience and sequence.

MEDIAMATH

Position: UI/UX Designer

New York City

June 2018 - August 2018 (Summer 2019)

INTRODUCTION TO MEDIAMATH

(from MediaMath's website, accessed February 2020)

"MediaMath is the acclaimed independent advertising technology company for brands and agencies.

Brands and their partners use our technology and services to achieve the performance they deserve with less effort.

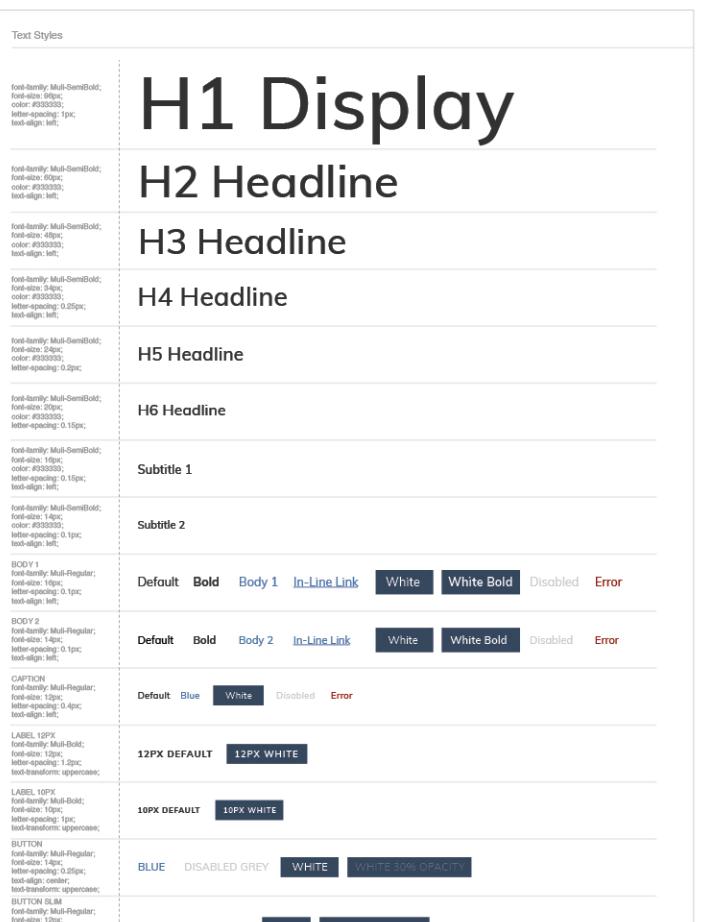
We created the first software for real-time media buying in 2007 and today work with over two-thirds of the Fortune 500 and more than 3,500 brands and their agency partners to grow and deepen direct customer relationships.

Our clients can access the purest supply to reach real humans at the scale they need across channels like mobile, CTV and display and can use a combination of advanced AI and human expertise to drive improved results over time."

MY WORK

At MediaMath, I worked with the UX Design & Research team to define on a new visual design system for MediaMath's new platform direction. This included creating style tile options, choosing a final direction, component and pattern iteration, desirability study research (to validate direction with stakeholders), component iteration, and a final Design System via Invision DSM.

All products designed for MediaMath, with appropriate permission to reuse. This is only a selection of work created during this summer position.



FORM COMPONENTS

Input

Input / Default	Search..	Search..	Search / Default
Input / Active	I	I	Search / Active
Input / Disabled	Search..	Search..	Search / Disabled
Input / Focus	Search..	Search..	Search / Focus
Input / Error	Search..	Search..	Search / Error

Select

Select / Default	Dropdown / Default
Select / Hover	Dropdown / Active
Select / Selected	Dropdown / Active Options
Select / Disabled	Dropdown / Disabled
Select / Focus	Dropdown / Focus
Select / Error	Dropdown / Error

Progress Indicators

Radio & Radio & Label Components

- Radio / Radio & Label Unselected
- Radio / Enabled / Selected
- Radio / Enabled / Hovered
- Radio / Enabled / Active
- Radio / Disabled / Selected
- Radio / Error / Unselected
- Radio / Error / Selected
- Radio / Focus / Unselected
- Radio / Focus / Selected
- Radio / Focus / Partial
- Radio / Focus / Unselected
- Radio / Focus / Selected
- Radio / Focus / Partial

Input / Single Date

Start Date	Choose a date	End Date	Choose a date
Start Date	Choose a date	End Date	Choose a date
May 9, 0000	May 9, 0000	May 9, 0000	May 9, 0000

Input / Date Range

Start Date	Choose a date	End Date	Choose a date
Start Date	Choose a date	End Date	Choose a date
May 9, 0000	May 9, 0000	May 9, 0000	May 9, 0000

Input / Date & Time Range

Start Date	Choose a date	End Date	Choose a date
Start Date	Choose a date	End Date	Choose a date
May 9, 0000	12 : 00 AM	May 9, 0000	11 : 59 PM
Start Date	Choose a date	End Date	Choose a date
May 9, 0000	12 : 00 AM	May 9, 0000	11 : 59 PM
Start Date	Choose a date	End Date	Choose a date
May 9, 0000	12 : 00 AM	May 9, 0000	11 : 59 PM
Start Date	Choose a date	End Date	Choose a date
May 9, 0000	12 : 00 AM	May 9, 0000	11 : 59 PM
Start Date	Choose a date	End Date	Choose a date
May 9, 0000	12 : 00 AM	May 9, 0000	11 : 59 PM
Start Date	Choose a date	End Date	Choose a date
May 9, 0000	12 : 00 AM	May 9, 0000	11 : 59 PM

Calendar Custom / Single Date

CUSTOM	YESTERDAY	TODAY
May 0000		
S M T W T F S		
1	1	2 3 4 5 6
2 3 4 5 6 7 8	7 8	9 10 11 12 13
9 10 11 12 13 14 15	14 15 16 17 18 19 20	21 22 23 24 25 26 27
16 17 18 19 20 21 22	21 22 23 24 25 26 27	28 29 30 31
23 24 25 26 27 28 29	28 29 30 31	
30		

Calendar Custom / Date Range

CUSTOM	LAST 7 DAYS	LAST 14 DAYS	LAST 30 DAYS	LAST 90 DAYS
May 0000				
S M T W T F S				
May 0000				
S M T W T F S				
May 0000				
S M T W T F S				
May 0000				

PAGE INTERACTIONS

Brand Button

DEFAULT / ENABLED	HOVER	PRESSED	FOCUS	DISABLED
NORMAL BUTTON	NORMAL BUTTON	NORMAL BUTTON	NORMAL BUTTON	NORMAL BUTTON

Outline Button

NORMAL BUTTON				
---------------	---------------	---------------	---------------	---------------

Test Button

NORMAL BUTTON				
---------------	---------------	---------------	---------------	---------------

Slim Brand Button

SIM BUTTON				
------------	------------	------------	------------	------------

Slim Outline Button

SIM BUTTON				
------------	------------	------------	------------	------------

Slim Test Button

SIM BUTTON				
------------	------------	------------	------------	------------

Breadcrumbs

HOVER	PRESSED	FOCUS	DEACTIVATED	ACTIVE	DISABLED	ERROR
Breadcrumbs						

Table

SELECTED	DEFAULT	HOVER	DISABLED	SELECTED	DEFAULT
SELECTED	DEFAULT	DEFAULT			

Accordion

TOGGLE OFF	TOGGLE ON	TOGGLE OFF	TOGGLE ON	TOGGLE OFF	TOGGLE ON
TOGGLE ON	TOGGLE OFF	TOGGLE ON	TOGGLE OFF	TOGGLE ON	TOGGLE OFF
TOGGLE DISABLED OFF	TOGGLE DISABLED ON	TOGGLE DISABLED OFF	TOGGLE DISABLED ON	TOGGLE DISABLED OFF	TOGGLE DISABLED ON
TOGGLE DISABLED ON	TOGGLE DISABLED OFF	TOGGLE DISABLED ON	TOGGLE DISABLED OFF	TOGGLE DISABLED ON	TOGGLE DISABLED OFF

Filter / Tag

FILTER TAG	X
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Filter / Container

FILTER	FILTER TAG
--------	------------

Filter / Combo

FILTER	FILTER TAG
--------	------------

Pagination

ENABLED	←	→	0	0	—			
DISABLED	←	→	0	0	—			
HOVER	←	→	0	0	—			
PRESSED	←	→	0	0	—			
FOCUS	←	→	0	0	—			
PAGINATION / COMBO	←	1	2	3	4	—	10	→

Segmented Button Group

ONE	TWO	THREE
-----	-----	-------

Input Stepper / Combo

INPUT	+
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Input Stepper / Add

INPUT	+
-------	---

Input Stepper / Remove

INPUT	-
-------	---

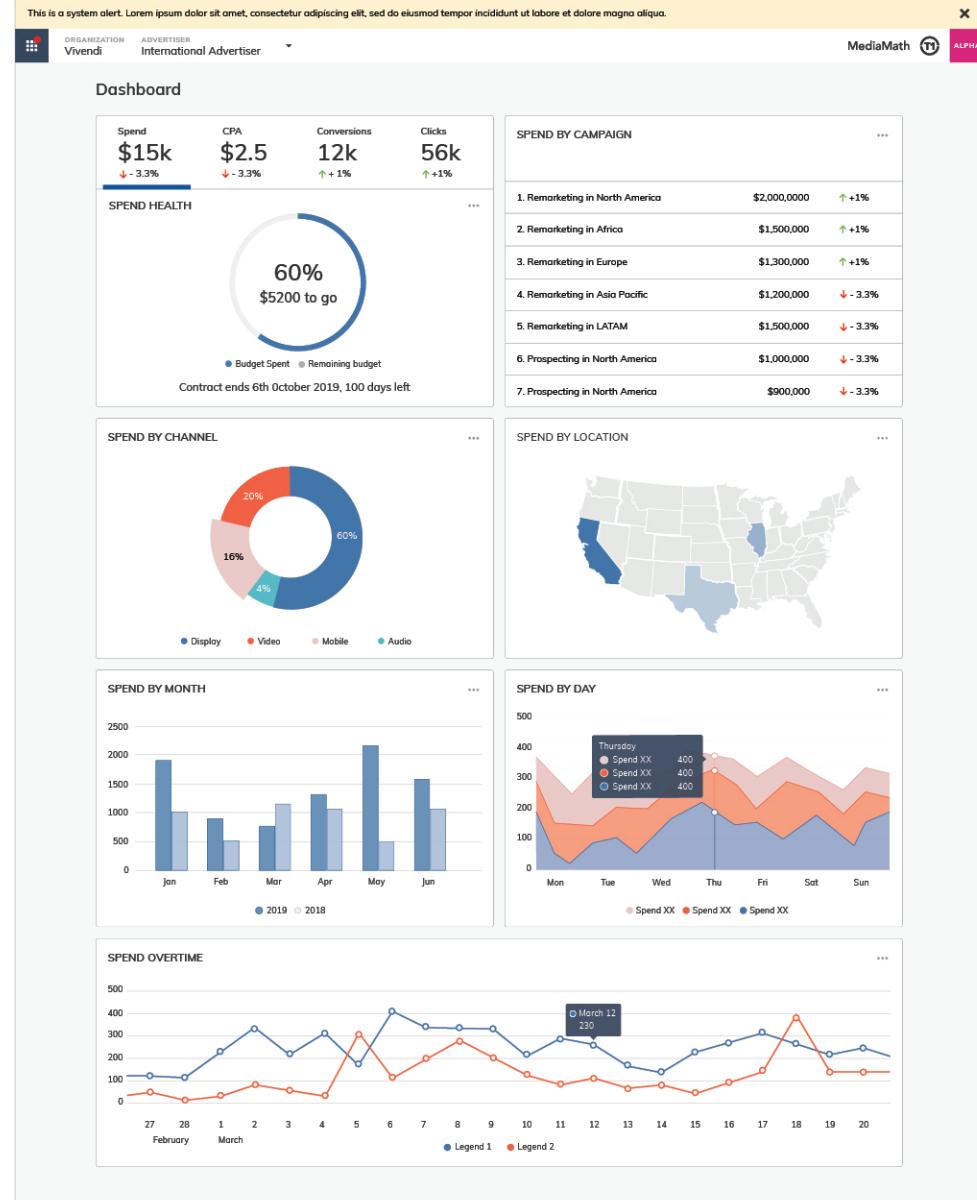
Accordion (Plain and Outline) Individual Components

- Accordion Plain / Open
- Body 2 Text here. Lorem ipsum dolor sit amet.
- Accordion Plain / Closed
- Accordion Outline / Open / First
- Body 2 Text here. Lorem ipsum dolor sit amet.
- Accordion Outline / Open / Middle
- Body 2 Text here. Lorem ipsum dolor sit amet.
- Accordion Outline / Open / Last
- Body 2 Text here. Lorem ipsum dolor sit amet.

6

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TESTING THE DESIGN SYSTEM



You are here: Campaigns > Create New Campaign

Create New Campaign

2. Budget Management

Declare your budget, goals and how you wish to spend this budget

Budget: Daily, 0.00, \$USD

Flights	Impression Goals
2017-07-24 12:00:00 - 2017-08-25 11:59:00	
+ FLIGHT	

Pacing: Both, Even

Daily Spend Cap: Automatic (Recommended) Custom Cap

Margin: Media Cost, %

Spend Goal: ROAS, %

Merit Pixel: Use advertiser default Custom

Attribution Window: Use advertiser default Custom

Post-View Attribution: 1, %

Attribution Method: T1 Last Touch Custom

Merit Event Count: One event per user Custom

Budget Allocation: Automatic (Recommended) Custom Allocation

Bid Amount: Automatic (Recommended) Custom Bids

Marketing Objective: Budget Management

Ad Delivery: Creatives

Targeting: Inventory

Forecaster

Bid Price: Input +

Impressions: 6,400 - 23,000 (of 8,700,000)

Uniques: 3,400 - 18,000 (of 6,700,000)

Media Spend (USD): \$ 2.566M

CANCEL **BACK** **SAVE AND NEXT**

Form Mockup

You are here: Campaigns > BACK TO CAMPAIGNS

Strategies

Campaign: thisIsACAMPAIGNname | Lorem ipsum dolor sit amet

8 issues caused no spend in 15 strategies.

4 issues caused low spend in 6 strategies.

PERFORMANCE BY Hour

DAYPART INSIGHTS

Saturday had the lowest CPA in this period

Day	CPA
Sunday	\$1.02
Monday	\$2.26
Tuesday	\$1.92
Wednesday	\$1.66
Thursday	\$1.32
Friday	\$1.81
Saturday	\$0.74

STRATEGIES

Status	Channel Type	Issue Type	Start Date	End Date
Active	All	All	Choose a date	Choose a date

CLEAR FILTERS

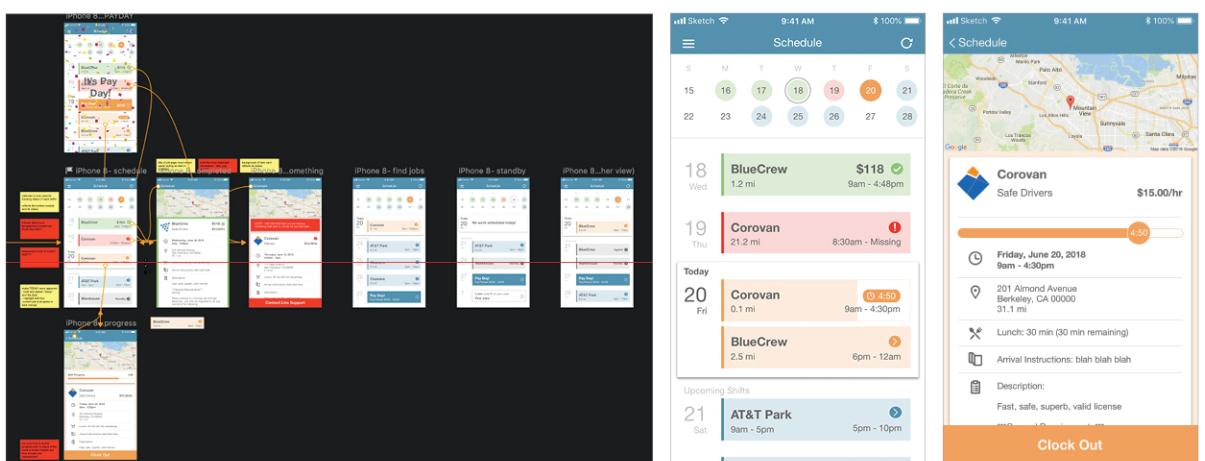
STRATEGY NAME	TOTAL BUDGET	TOTAL SPEND	GOAL	ACTUAL	BID PRICE	WIN RATE	DAILY PACING	IMPRESSIONS WON	CTR
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%
REM 1P Non-Lotame NA Description NA Geo CPA Display All	\$20,000	\$2,333	\$5.50	\$5.98	\$2.50	10%	\$500	200,000	0.02%

Table and Data Mockup

PRODUCT

SCHEDULED JOBS - WORKERS (MOBILE)

The first and most radical project I worked on was to update and rebrand the main page of the mobile app (worker-facing). The previous design of the page had some of the features of the product, such as a brief weekly calendar, and a scrollable list of a worker's scheduled shifts. This area also features call to action opportunities for future recommended jobs. I chose to redesign the interface with the same 2 week calendar view, but reconsider the color scheme and hierarchy of complex information for each shift.



RESUMES - WORKERS

As a potential future product for the platform, I created worker resume templates for the mobile experience "Profile" page. This product introduced an opportunity for workers to have an automatically generated 'BlueCrew' resume to download and send to prospective jobs with BlueCrew or even outside BlueCrew. It would be BlueCrew branded, and would have prior background and work experience information created from the worker's previous jobs with BlueCrew.

for a great worker

MARGARETA BUFFY

BIOGRAPHY

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis.

Commuting from Oakland, CA.

RELIABILITY

99%
403 Shifts Worked

APPROVAL RANKING

88th
Percentile

VERIFIED SKILLS

Top skills based on hours worked:

Warehouse Work

Customer Support

Pick & Pack

Other skills:	Pallet Jack	Pallet Jack
Food Production	General Labor	Food Production
General Labor	Pallet Jack	General Labor
Pallet Jack	Food Production	Pallet Jack

Lifetime Points: 521

Favorited By:

AT&T Park

Conway

Dolls Kill

Jump Bikes

Minterl

Minterl

RECENT EXPERIENCE

BlueCrew Employee

BlueCrew, San Francisco

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore.

Other Company

Company, Location

2016-Present

Last Company

Company, Location

2011-2015

Last Company

Company, Location

2011-2015

Hall of Fame
Level 5

Forklift
Certification

Bartending
Certification

Other
Certification

Hire me on [bluecrewjobs.com](#)

Updated Month, XX, XXXX

BLUICREW

Position: Experience Designer
San Francisco, CA
June 2018 - August 2018 (Summer 2018)

INTRODUCTION TO BLUECREW

(from BlueCrew's website, accessed January 2019)

"BlueCrew is an on-demand staffing platform for temporary workers. We are an IAC backed company looking to change the future of work by adding transparency to a antiquated staffing world. We are the best platform to quickly fill low complexity positions with high quality workers. Our matching algorithm and app based approach allow us to quickly employ thousands of low income workers in the Bay Area, LA, Austin, Denver, St. Louis, Reno, and across the country doing jobs like warehouse work, stadium concessions, and delivery roles.

We have a big mission here at BlueCrew. We believe hard work makes us stronger, as well as that anyone who wants to work should be able to work. Our goal is to change the way that hourly workers access work."

MY WORD

The bulk of my work at BlueCrew was to reimagine and redesign some of the outdated product interfaces. My focus was on creating a simplified interface for the worker-facing product screens, as many of the BlueCrew workers are blue-collar residents of industry-heavy cities. Additionally, many of my projects at BlueCrew focused on creating a consistent brand within the companies offices, and forming materials for those offices to use to grow and expand within their cities.

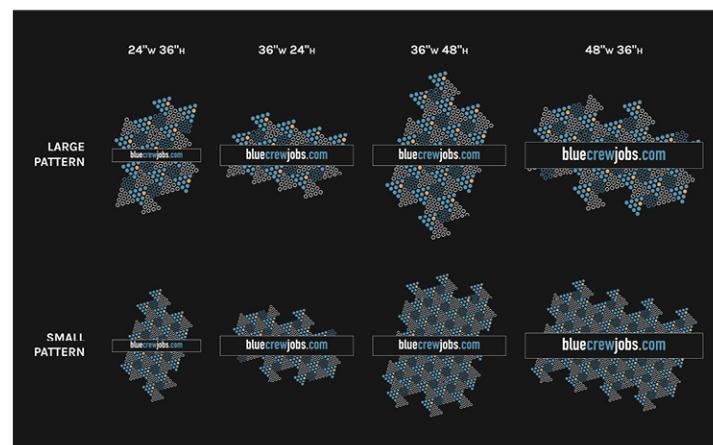
All products designed for BlueCrew, with appropriate permission to reuse. This is only a selection of work created during this summer position.

MARKETING

LOCATION DESIGN PACKAGE

The Location Design Package project was tasked to me after a conversation with the sales and product teams about the recent growth and expansion of the company. Recently BlueCrew had opened new offices in cities around the country, and the sales teams wanted to ‘jazz’ up the office spaces and window decorations to make it more BlueCrew Branded.

BlueCrew offices are incredibly important to the company, as this space is often used as an interview center, sales center to meet with clients, and is the first impression that the city may have with the company.



BILLBOARDS

I was challenged with designing a series of billboards and posters for our Reno (Nevada) Bluecrew division. Reno's office focused mainly industry factory jobs, as that was plentiful in that area. The billboards were placed on a local highway, which serves mainly small businesses.



BRANDING

STYLE GUIDE

My final product for BlueCrew was to design and create a comprehensive and finalized BlueCrew Style Guide. This was tasked to me at the beginning of my internship, and was a result of the culmination of the product design, branding design, and marketing materials I created throughout the summer.

05 logo + marks

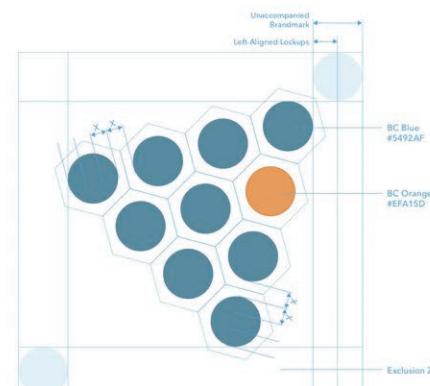
our logo

Our logo is our most valuable and important brand asset. Learn how to best represent the BlueCrew in any and all experiences. Do not use any combinations of colors or shades not stated here to represent BlueCrew.

angle of rotation
The logo is rotated at a 15° angle.

brandmark anatomy

The BlueCrew brandmark is made up of 10 circles, laid triangularly within a hexagonal grid. The spacing between the circles is 1/3 of the diameter of a circle. The accent circle (orange) is placed as the third/last circle in the second row. The width of the exclusion zone must be at least the diameter of a circle.



primary brandmark
The primary mark is to be used with the standard mark anatomy and colors.



secondary brandmark
Used in monochrome and whiteout situations, the secondary mark is similar to the primary mark, but the accent circle is replaced with an outlined circle.



05 logo + marks

website lockup

The website lockup is a horizontal lockup consisting of the primary logo and the website address 'bluecrewjobs.com'.

Left-aligned lockup (primary logo)

The left-aligned lockup is the recommended and most common way to use the brandmark. It can be used anywhere where a more rectangular lockup is desired.



03 colour palette

status indicators - mobile ui

These colors relate directly to the mobile UI status indicators. They are also used in the mobile lockups, the website lockup, and are included in the style guide for reference.



future

"Future" status is used to indicate the future confirmed job interviews a user has on their schedule.

current

"Current" status is used for the current day.

standby

"Standby" status is used to indicate jobs a user is on standby for or for any unconfirmed jobs in the future.

work

"Work" status is used to denote every task for now jobs. It is not used exactly like a color, but gives the impression of a placeholder for a job in our website.

incomplete

"Incomplete" status is used to indicate jobs that have not been completed.

closed

"Closed" status is used to denote every task for now jobs. It is not used exactly like a color, but gives the impression of a placeholder for a job in our website.

DATA MECHANICS LANDING PAGE

July 2019 - August 2019

Built using Webflow

INTRODUCTION TO DATA MECHANICS
(from Data Mechanic's landing page, accessed February 2020)

"The simplest way to run Spark. Just send your code, we handle the mechanics.

Run autoscaled Jupyter kernel with Spark support from the notebook environment you already have. Use our operator library to launch scheduled jobs from your favorite orchestrator (Airflow, Luigi, Azkaban, custom schedulers).

We automatically set the infrastructure parameters and Spark configurations so you don't need to worry about them."

MY WORK

This was a small project for a startup that asked for a landing page and basic branding direction. The startup was most interested in developing their online presence, so in addition to building the landing page, I also created custom graphics, diagram assets, and simple logo/typography guidelines.



The simplest way to run Spark

Just send your code, we handle the mechanics.

Want to learn more? Data Mechanics is available on any cloud provider. Reach out so we give you a live demo and prepare a deployment for you.

GET A DEMO



Maintenance is on us

Our platform tunes the infrastructure parameters and Spark configurations dynamically and continuously for each of your workloads, making your applications 2x faster and more stable on average. We make using Spark as easy as it should be.

The fastest experience with Spark

Notebooks and scheduled jobs are triggered and autoscale in seconds to react to the desired load. No more waiting 10 minutes for a cluster to spin up!



Open-Source and Kubernetes native

Bring the DevOps best practices to your data stack. Kubernetes-native, our platform is available on any cloud provider and integrates with the tools you already use and love. Just point your notebooks solution to our gateway and you're ready to go.

They trust us



Frequently Asked Questions

- How do I use it?
- What's the installation process like?
- How much does it cost?
- Which infrastructures do you support?
- Do you support other big data technologies than Spark?

The simplest way to run Apache Spark

Contact us for a demo or to learn more about Data Mechanics!

GET A DEMO

BIOTECHNOSPHERE BATHROOM

Fourth Year | Fall 2018

48-734 Reactive Spaces and Media Architecture

Professor: Jakob Marsico

With hopes that the future of mankind will live in greater integration in the natural world and coexistence with its creatures, our team used this foresight to create a space that exercises telepresence in both the natural world and our own. We decided to foster our own space of integration, using fish as models to better envision the mutualistic interactions we foresaw between creatures of the natural world and humans.

The Bathroom is a bathroom in which a fish tank houses its own fish-scaled replica of our human-scaled bathroom. In The Bathroom, the usual consequence of a person's action is amplified by one that affects the fish's world and vice versa. Brightness tracking and basic circuitry were employed to facilitate three main interactions.

Program: Touchdesigner, Arduino

In collaboration with Soonho Kwon, Miranda Luong, Johanna Mcallister, and Nicole Matis.

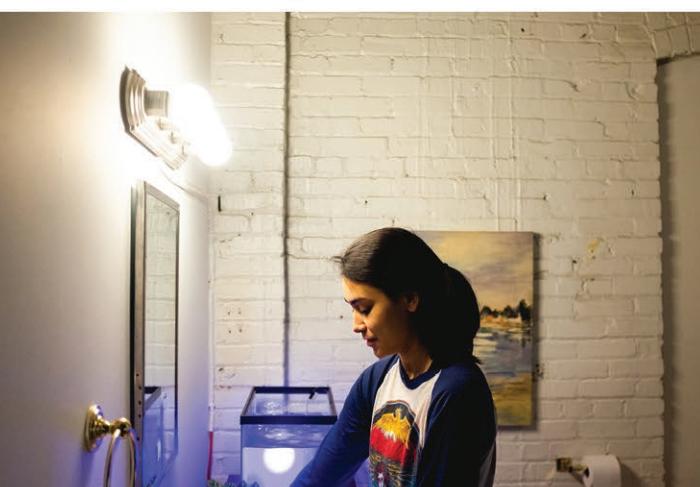
Photos by Soonho Kwon.



KNOCK A knock on the fishs' tank produced an echo of a knock in the human bathroom.



LIGHTS A fish entering their own bathroom turned on the lights of the human bathroom.



BUBBLES A human sitting on their toilet caused bubbles to emerge from the fish's toilet.



LUNAR GALA - SURFACE

CARNEGIE MELLON UNIVERSITY

Design + Construction Process: Fall 2017 - Spring 2018

Runway Show: February 17, 2018

SURFACE explores the issue of the distortion and trivialization of the human body into objects of desire. The veneer of mesh, overlaid with cut contours, is a constructed external appearance that illustrates areas of the socially ideal body, exposing those who wear it to appreciation and admiration, but also leaving them vulnerable to objectification. As the line progresses, the body becomes more clearly exposed than upon first impression. It is meant to represent an exaggerated set of physical attributes that emphasize the scrutiny of our bodies – conscious and subconscious, external and internal.

More about Lunar Gala:

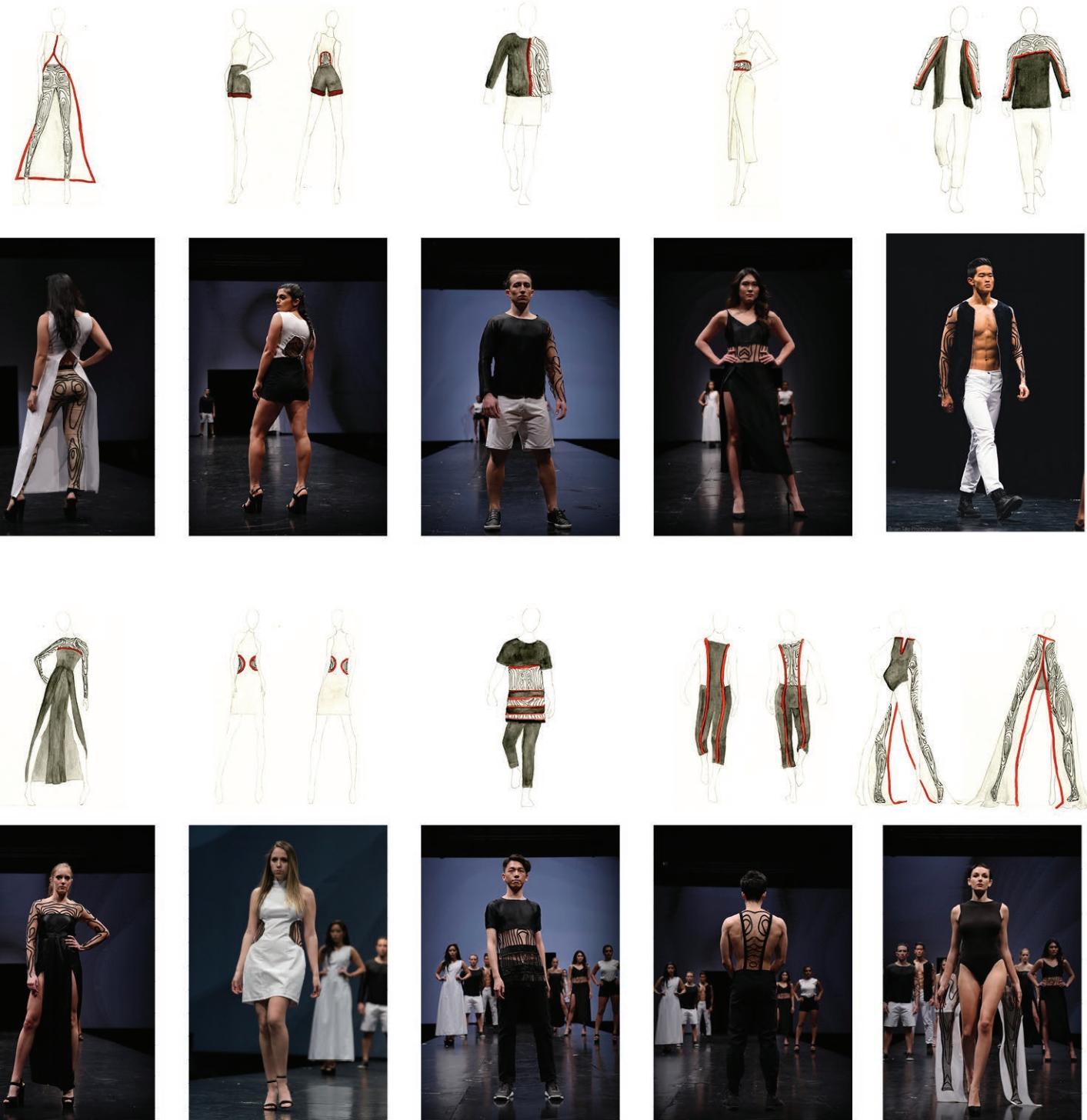
Originally created in 1997 to ring in the Chinese New Year, Lunar Gala has transformed into a highly anticipated event that hundreds hope to be part of and thousands hope to come see. While staying true to its original intent, it has developed into a much larger production and has become a more impactful organization to the CMU and Pittsburgh community. Every year, the theme of the show is centered around the Zodiac animal of the lunar calendar. Now, Lunar Gala is arguably one of the largest fashion events in Pittsburgh, having sold out



over 1200 seats each year with 140+ students involved in producing, designing, modeling, and dancing in the show. Students across all majors and cultures create original and creative lines, infusing technology and complex materials with wearable fashion.

In collaboration with Michael Powell.

Photo Credits: Brian Tao, Monica Godfrey, Wilson Chan, Fengyi Hu



SHAKE SHACK ANIMATION

Fifth Year | Fall 2019

48-568 Advanced CAD, BIM, and 3D Visualization

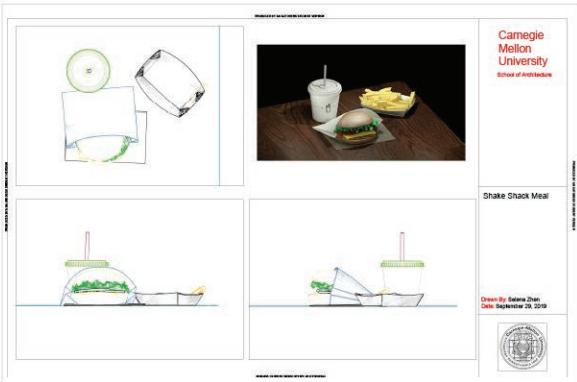
Professor: Kristen Kurland

The project started as an exercise in modeling and rendering in AutoCAD, and evolved into an animation project using 3DS Max. The result was a "commerciel-style" animation of the construction of a Shake Shack meal.

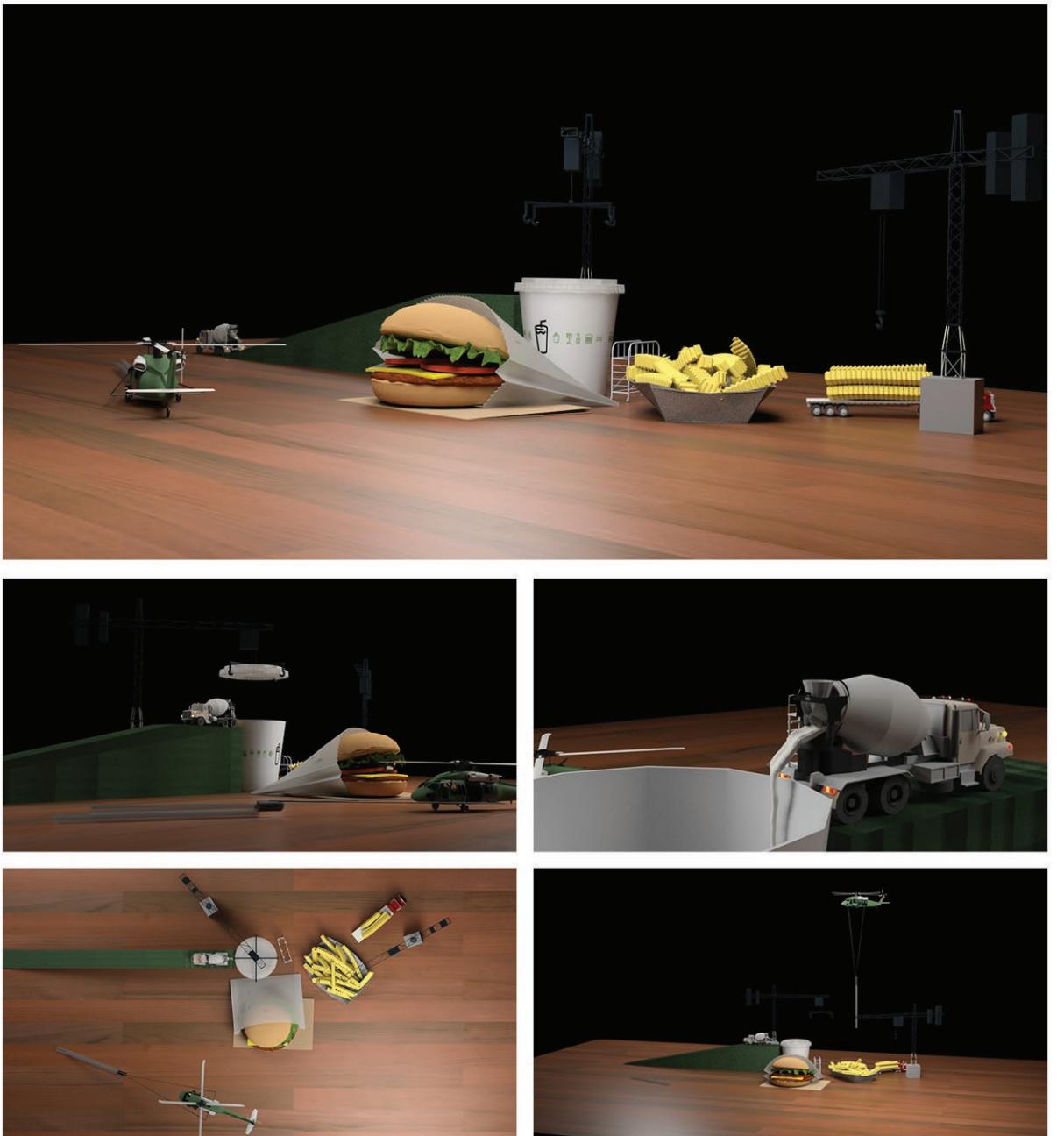
Received class awards for both Top Voted AutoCAD project and Top Voted 3DS Max Project.

MODEL AND ANIMATION REQUIREMENTS:

- Multiple cameras
- Multiple lights
- Multiple, interesting materials
- At least 1 animated object
- At least 1 special effect (liquid, wind, etc)
- Sound
- Animation Movie



Top: AutoCAD Render
Bottom: AutoCAD Drawing Sheet



3DS Max Animation Video Scenes

HIGH RISE ‘UNTITLED’

4th Year | Fall 2019

48-400 Advanced Synthesis Option Studio: High_Rise ‘Untitled’ 2018, New York, NY

Studio Coordinator/Professor: Gerard Damiani

PROJECT INTRODUCTION

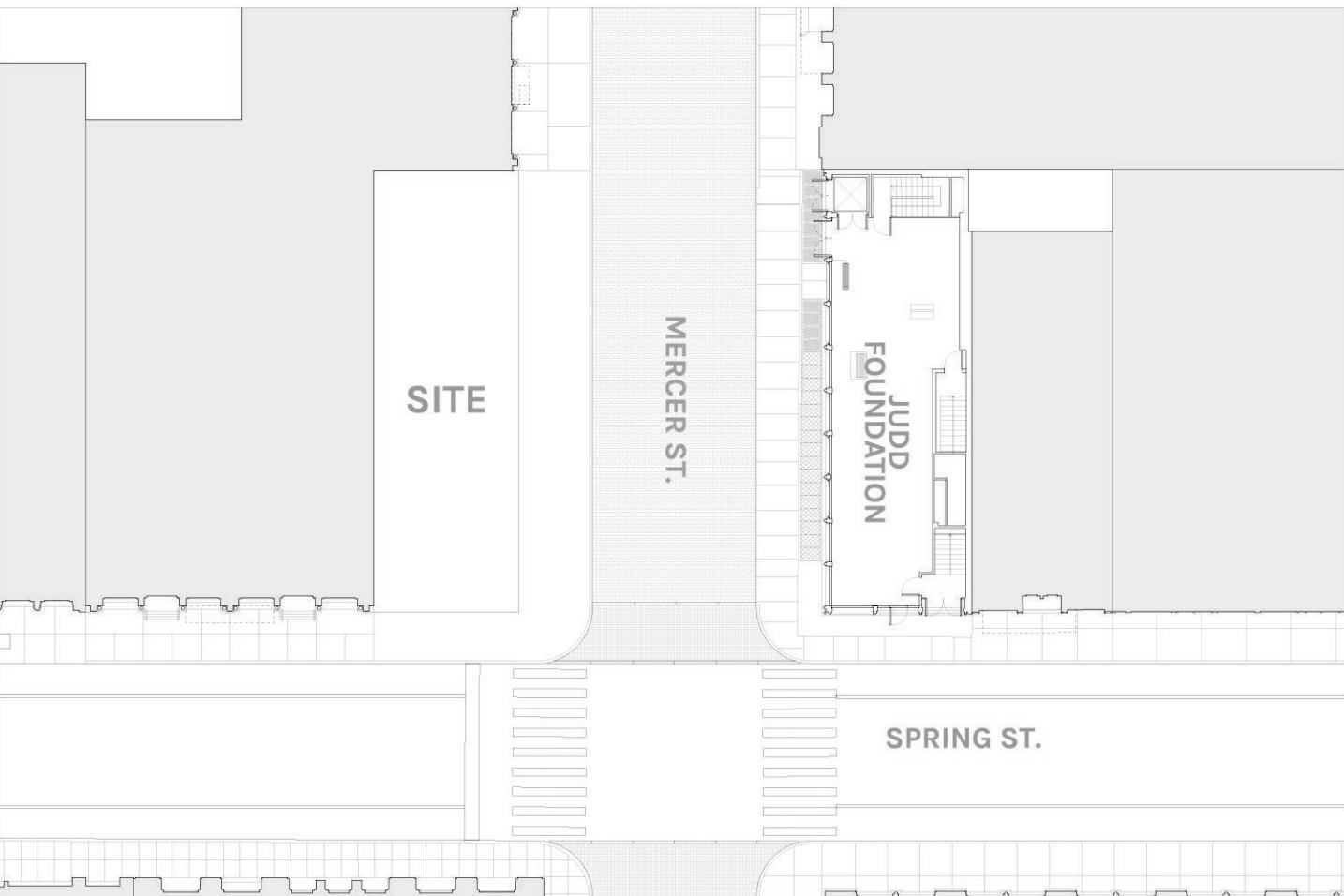
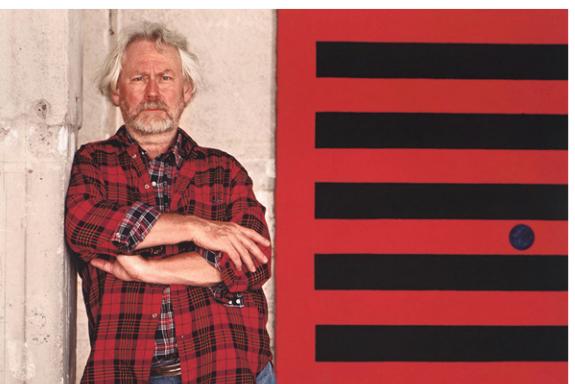
The introduction to the studio was initially written by Professor Gerard Damiani, and is paraphrased here.

"This studio will look at the role of the architectural promenade and how it can be adapted to the typology of the high-rise. The promenade architecture first described by Le Corbusier as a sequence of spaces and direction of movement in the Acropolis in Athens is a way of constructing views, vistas and experiences. The high-rise, an American typology, acknowledges maximizing building area but does not address the role of the architectural sequence. This studio will investigate the high-rise typology through the hybridization of the typology with the architectural promenade.

This studio will focus on the writings and artistic output of Donald Judd as the intellectual underpinning of the studio, which will inform the spatial and detailing agenda of the studio project. Often considered an artist of obdurate space, Judd's works are highly refined being conscious of their context (what he called fundamental realities), space,

material, color and detail. An inspiration to architects such as Steven Holl and Herzog & de Meuron, the works of minimalist artist Donald Judd (1928-1994) spanned both art and architecture through a search for autonomy and clarity for the objects and the spaces they occupy."

The program will focus on a urban high-rise structure located in SoHo in New York City directly across from the Judd Foundation. The building is to be a high-rise construction (75 feet or higher) consisting of vertical galleries, a museum store, studio workspaces for visiting artists, and apartments.





Spring St. Elevation

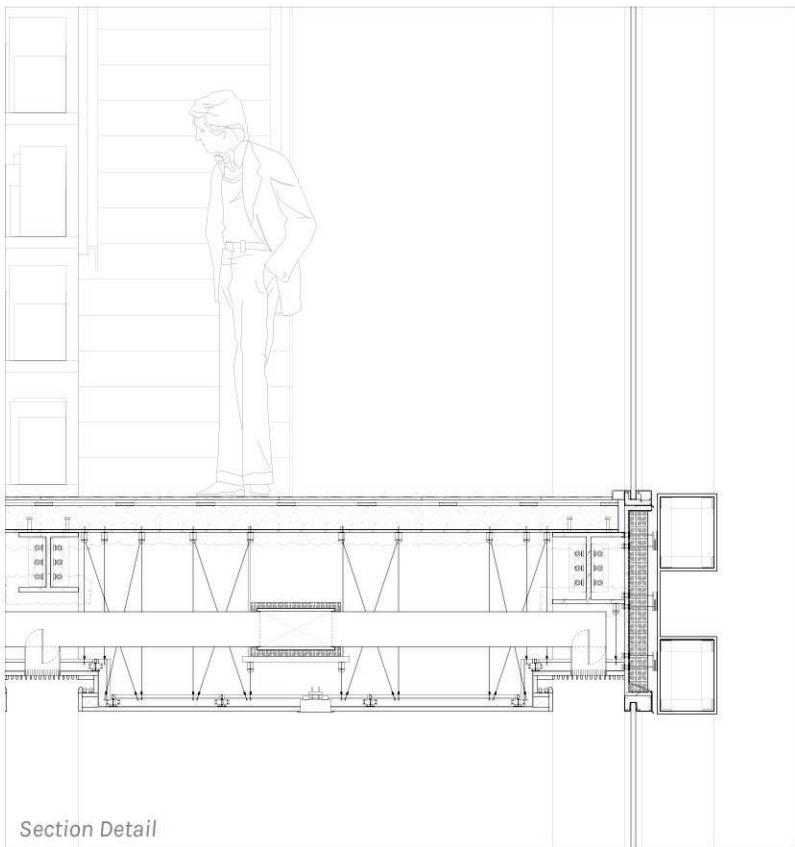


Mercer St. Elevation



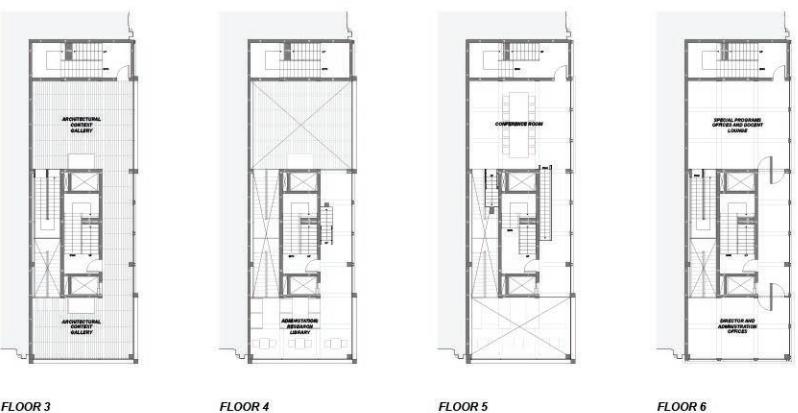
[TOP] Architectural Context Gallery

[BOTTOM] Neutral Room Gallery - Dan Flavin Inspiration

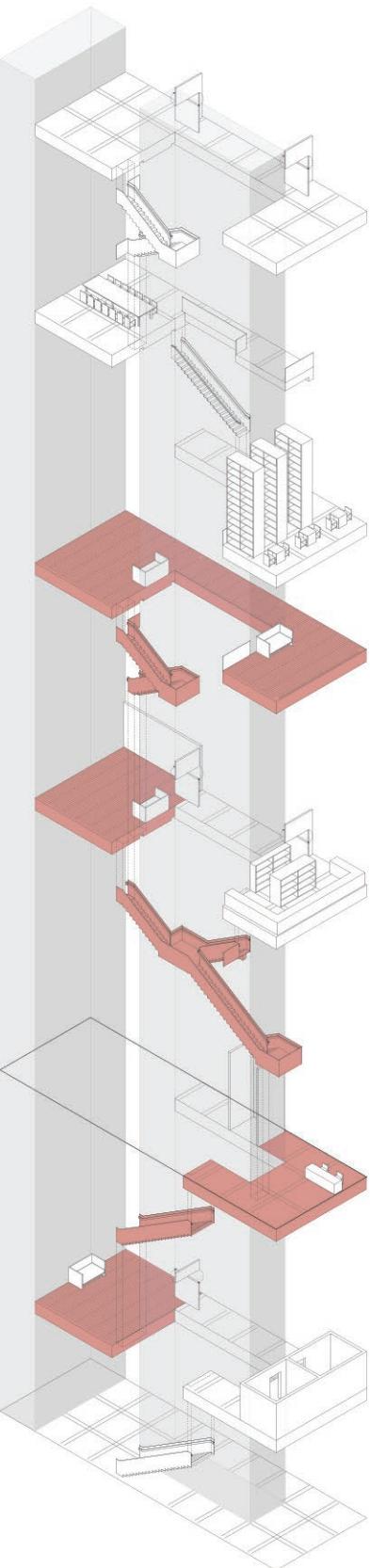
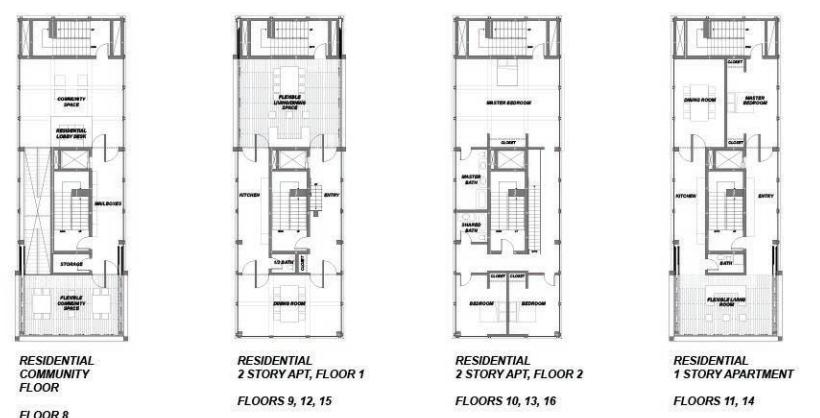


Section Detail

MUSEUM ANNEX



RESIDENTIAL UNITS



Gallery Sequence

NEW EXPERIMENTAL THEATER FOR NYC

Fourth Year | Spring 2019

48-601 Advanced Synthesis Option Studio: 4-D Architecture - Narrative, Hierarchy, Procession and Rhythm in Design

42-408/418 Theater Architecture I & II

Professor: Hal Hayes

STUDIO INTRODUCTION

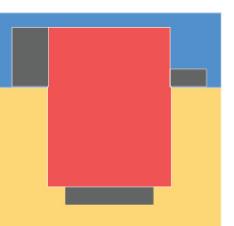
The introduction to the studio was initially written by Professor Hal Hayes, parts of which are rewritten or paraphrased here.

Over the course of the project, the studio collaborates with Drama and Masters of Arts Management (MAM) students to develop mastery of the technical requirements of performance art through co-requisites 42-408 & 418, Theater Architecture I & II. These 4-D Studio and Theater Architecture courses were created to study and design hyper-flexible performance spaces which respond dynamically to an artist's creative vision and the audience's evolving desires. It is built on the understanding that while architectural space is largely three-dimensional and static, human occupancy is inherently four-dimensional and dynamic.

The site is immediately adjacent to the 9/11 Memorial and One World Trade Center megastructure. The World Trade Center Performing Arts Center (PAC) is the most anticipated, and controversial, addition in a generation to Manhattan's rich performing

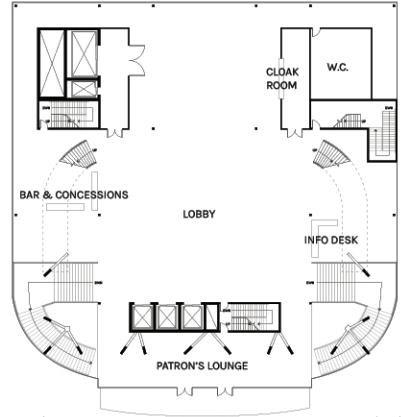
arts ecosystem. This 1200-seat three-theater complex is a real project currently in design and planning. This studio tackles the same site, program and constraints as those of the professional design team, which required us to develop mastery of the technical realities of performance productions, construction methodologies, structural & mechanical systems and community/stakeholder activism.

In addition to developing technical and construction skills, the project is also largely about understanding occupancy and human experience. The design of a theater is particularly unique, as movement, occupancy, and experience are amplified and exaggerated.

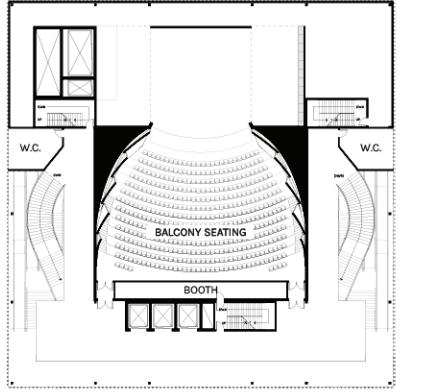


PARTI DIAGRAM
PLAN

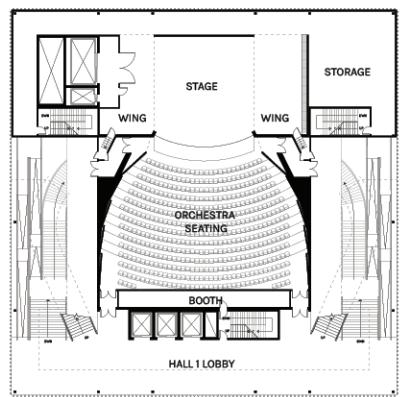




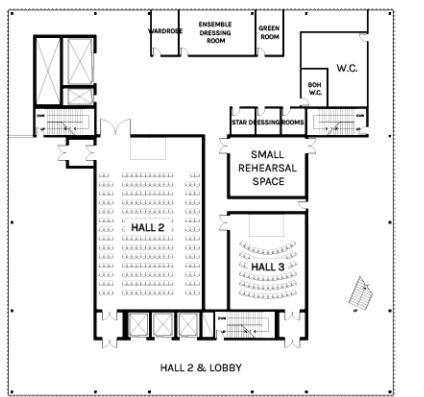
LEVEL 2



LEVEL 5
HALL 1 BALCONY



LEVEL 4



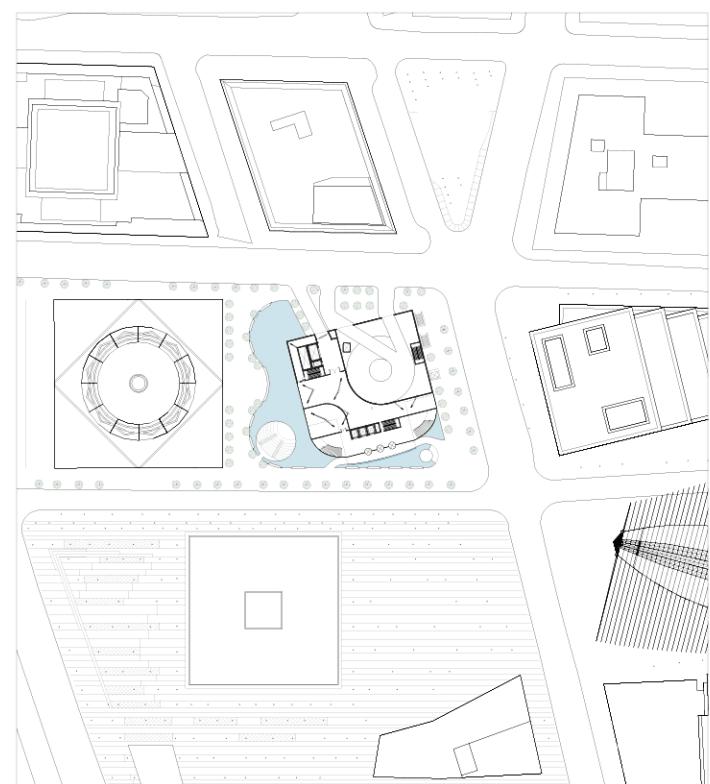
LEVEL 8



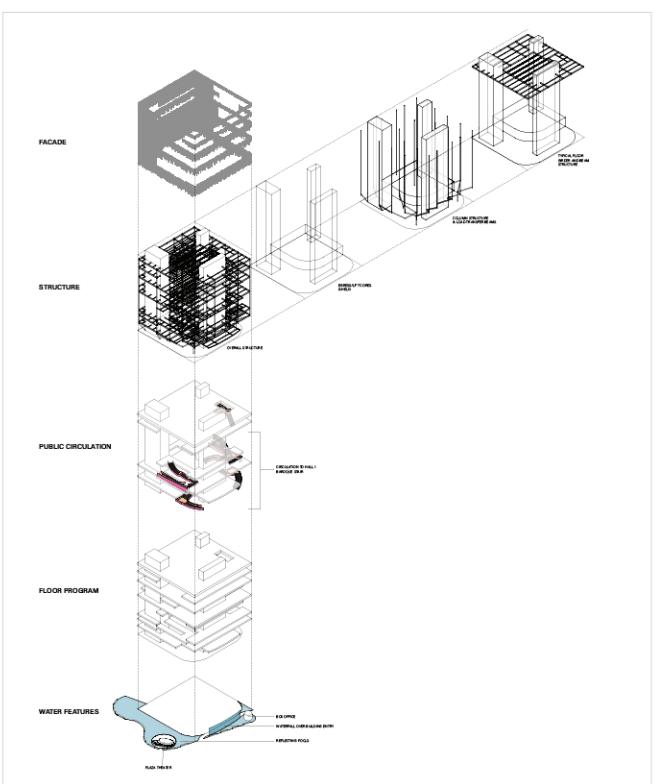
An architectural model of a city skyline, likely a rendering of the One World Trade Center site. The central feature is a tall, slender skyscraper with a distinctive stepped or cantilevered facade. To its right is a shorter, more traditional-looking building with a grid-like pattern. In the foreground, there's a cluster of smaller buildings and some greenery. The entire model is set against a plain, light-colored background.



Large Scale and Small Scale Models



Site Plan



Systems Diagram