karalynnbressler

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EDUCATION

Princeton University
B.S.E. Computer Science & Visual Arts | 2015–2019

WORK EXPERIENCE

DreamWorks Animation | Feature Film
Lighting Technical Director | Fall 2019–
Implementing & maintaining rendering / compositing workflows for 50+ CG lighting artists
Using Python, C++, Houdini, Nuke, Linux
Credits: *The Croods: A New Age*, *The Bad Guys*

Dexter Sinister / O-R-G
Graphic Design Intern | Fall 2018–Spring 2019
Developed graphic work for 3D mock-ups & helped design typefaces / print layouts
Used Processing, Python, Illustrator, InDesign

Microsoft, Windows Core
Technical PM Intern | Summer 2018
Prototyped visual integration of 3D models in Windows compositor
Used C#, XAML

Microsoft, AI & Research
Software Engineering Intern | Summer 2017
Designed & developed extension for AI researchers to submit to deep learning GPU cluster
Used Python, JavaScript, Jupyter Notebooks

High Meadows Environmental Institute
Research Intern | Summer 2016
Led WV fieldwork team collecting & analyzing data on leaking oil & gas infrastructure
Used Java, ArcGIS

TEACHING

Outdoor Action
Outdoor Educator | 2016–2019
Led week-long backpacking trips teaching soft skills & leadership development
Collaboratively developed curriculum for Leave No Trace ethics training

Conservancy of Southwest Florida
Education Intern | Summer 2015
Led conservation-themed activities & day trips for elementary & middle schoolers

SELECTED EXHIBITIONS

Wrecked Alphabet | *Broodthaers Society of America* | *2020*
Included works: *Local Alphabets, or *LA* poster*, *Walk Cycle* flip clock, *The Last Question*

CAUSTICS | *Hurley Gallery, Princeton University* | *2019*
Solo thesis exhibition engaging with data collection & embodied language

Light Shards | *Princeton University* | *2019*
Site-specific series of murals serving as documentation of ephemeral sunlight patterns

Public Lands, Private Hands | *CoLab, Princeton University* | *2019*
Typographic installation accompanying event elevating Native voices

ARTIST TALKS

Exploring Local Alphabets | *2021 (expected)*
TypeThursday Los Angeles, ArtCenter College of Design

Topography Typography | *2019*
WorkHack, NYC Babycastes

Light in the Dark | *2019*
*A *New* Program for Graphic Design, Princeton University*

Geoglyphs | *2019*
New York Univerity ITP

**SELECTED
INDEPENDENT PROJECTS**

Topography Typography | *Python, TensorFlow, Illustrator, Glyphs* | *2018–*
Letterform detection & typeface creation from arbitrary satellite imagery

LOS ANGELES, or *LA* | *2020*
Visiting physical letterforms in an effort to better connect with my new context

BEARS EARS | *2019*
Circulated pamphlet w/ the presidential proclamation of redacted National Monument
Partnered w/ the Bears Ears Inter-Tribal Coalition

LRS PIEA3RS | *2018*
Grant-based typographic fieldwork engaging with Peruvian geoglyphs
Created poetic encoder & digital clock interface which mimic a river's perspective of time

PRINCETON | *2018–2019*
Designed & published a viewbook of graduating students' work
Re-imagined the Princeton Visual Arts department's graphic identity

AVERAGE | *2018*
The *average* character set as defined by the 1995 MNIST handwritting dataset

Snowflakes | *Processing* | *2018*
Programmatically-generated snowflakes accompanying logic for patterns by artist Joe Scanlan

Photon Mapping | *C++* | *2018*
Implemented global illumination algorithm including caustics & a participating medium

PAPERS

Topography Typography: Detecting Glyphs and Creating Fonts from Satellite Imagery
Thesis paper following two semesters of independent Computer Science research | 2019

Measuring methane emissions from abandoned and active oil and gas wells in West Virginia
Stuart Riddick, Denise Mauzerall, Mike Celia, Mary Kang, Kara Bressler, Chris Chu, Caleb Gum
Science of the Total Environment | 2019

**VOLUNTEERING &
MENTORING**

Young Storytellers
Animation Mentor | *Fall 2020*

SIGGRAPH
Student Volunteer | *Summer 2019*

Princeton Club Archery
Peer Coach | *2015–2018*

Community School of Naples Basketball
Student Coach | *2014–2015*

HONORS & AWARDS

Lucas Award in Visual Arts | Princeton University | 2019
Creative Leadership Award for Facilitation | Princeton Dean of Undergraduate Students | 2019
Book Award for Studies in Media Theory | Princeton German Department | 2019
Best Poster for Independent Work Research | Princeton Computer Science Department | 2018
Berl & Berl Senior Thesis Research Award | Princeton Lewis Center for the Arts | 2018
Gold Key for Visual Artwork | Scholastic Arts & Writing Awards | 2015
Jane N. Reidel College Scholarship | The von Liebig Art Center | 2014
Juried Grand Prize Winner in Photography | Nagoya Univeristy of Arts and Sciences | 2013

TECHNOLOGIES

Python | **Java** | **C++** | **GLSL** | **C** | **MATLAB** | **HTML** | **CSS**
Processing | **Houdini** | **Nuke** | **Photoshop** | **Illustrator** | **InDesign** | **Lightroom** | **Arduino**