Charlie Holtz

711 Ladd Road Bronx, NY 10471

May 2018

EDUCATION

Brown University Providence, RI

Bachelor of Science in Cognitive Neuroscience, Computational Track Honors, Nominated to Sigma Xi (Scientific Research Honor Society)

Courses: Software Engineering, Functional Programming, Data Fluency, Computational Cognition

Languages: Experience in Python, Java, TensorFlow, Scala, SQL, HTML, CSS, JavaScript

Cumulative GPA: 3.49/4.00

Harvard Graduate School of Design

Design Discovery Program in Architecture

Cambridge, MA

Summer 2017

Fieldston High School Bronx, NY June 2013

WORK EXPERIENCE

Serre Lab in Computational Vision

Research Assistant, Web Developer

Providence, RI

2016-Present

- Awarded honors and Sigma Xi Honor Society for thesis on modeling Grid Illusions
- Modeled the visual system in the context of optical illusions, increasing relative accuracy from 75 to 80% by implementing excitation and inhibition between receptive fields in Python
- Led a redesign effort of Brown's Cognitive, Linguistic, and Psychological Sciences website.

Tradeweb Markets Tokyo, Japan Fall 2017

Market Analyst Intern

- Wrote Python scripts to scrape data on recent trades, increasing data collection speed 10x
- Presented weekly reports on trends in East Asian bond markets
- Updated head of East Asian Markets on cryptocurrency developments

Zone Digital London, England Summer 2016 Data Analytics Intern

Created SQL database of 500+ UK competitors and a web app to interact with the data

SELECTED PROJECTS

Modeling of the Visual Stream in the Hermann Grid (Python) — Honors Thesis, Spring 2018

- Improved accuracy of computational models of the visual cortex by 5%
- Proposed a new biological explanation for the illusory strength of Grid Illusions

Stuff Goin' Down (Java) — Software Engineering Final Project, Spring 2018

- Collaborated to create an interactive life map of the world's breaking news, organized by sentiment
- · Created user and sentiment analyzer classes in Java, built user up/down voting functionality

Brown University Cognitive Science Departmental Website — Paid Project, Fall 2018

- Primary developer (UI, site organization, copy) for Brown's new departmental website for <u>Cognitive</u>, Linguistic, and Psychological Sciences.
- Built on Drupal, with certain pages requiring custom HTML/CSS

LEADERSHIP EXPERIENCE

- Ultimate Frisbee A Team finishing 5th in nation in 2018
- Selected as a Meiklejohn Peer Advisor to advise and support incoming first-years
- Architecture & Design Teacher at the Wheeler High School

References:

Dr. Thomas Serre, Brown University – thomas_serre@brown.edu Paul Worthy Managing Director of Tradeweb Japan – paul.worthy@tradeweb.com