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Charlie Holtz

EDUCATION

Brown University   Providence, RI
Bachelor of Science in Cognitive Neuroscience, Computational Track   *May 2018*
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   Cambridge, MA
Design Discovery Program in Architecture   *Summer 2017*

Fieldston High School   Bronx, NY
                                                                                    June 2013

WORK EXPERIENCE

Serre Lab in Computational Vision   Providence, RI
Research Assistant, Web Developer   *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
Market Analyst Intern   *Fall 2017*
- 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
Data Analytics Intern   *Summer 2016*
- 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 Cognitive, Linguistic, and Psychological Sciences.
- Built on Drupal, with certain pages requiring custom HTML/CSS

LEADERSHIP

- 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