

Valentine Wilson

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Skills: Python (NumPy, OpenCV, TensorFlow, scikit-learn, Matplotlib, BeautifulSoup, Gephi, DeepLabCut2), R (Shiny, ggplot), SSPS, JavaScript (jQuery, D3, Waypoints, ScrollStory, Chart.js), HTML/CSS, SQL, Java, Tableau

Coursework: Data Visualization, User-Interface Design, Machine Learning, Research Methods and Analysis
Linear Algebra, Probability and Statistics

WORK EXPERIENCE

The Hudson Institute

May 2019 – August 2019

Technology Policy Research Intern

Washington, DC

- Assisted scholars in analysis of 5G networks, the United States-China trade war, and quantum encryption.
- Staffed events on Capitol Hill: checked-in guests, distributed programs, and helped facilitate Q&A sessions.

Draper Laboratory

May 2018 – August 2018

Machine Intelligence Intern

Cambridge, MA

- Created targeted and non-targeted adversarial attacks on deep neural networks.
- Visualized social graphs of company employees using Gephi to find clusters of people with similar skill sets.
- Cleaned financial data to be used in market prediction software.

Institut Pasteur

June 2017 – August 2017

Data Visualization Intern

Paris, France

- Created a web app which visualizes gene expression data over time using R and Shiny.
- Integrated dimensionality reduction (PCA, t-SNE) and scree plots as data pre-processing options.

Leidos

December 2015-December 2016

Machine Learning Intern

Reston, VA

- Created the gold standard for annotation of biochemical papers on the DARPA project, Big Mechanism.
- Used TF-IDF to vectorize the tables and text in biochemical research papers.
- Used TensorFlow to create a neural network to pair tables with their associated text.

PROJECTS

Typography Phylogenetic Tree

May 2020

- Used a combination of BeautifulSoup and manual scraping to create a spreadsheet of aesthetic movements and relationships between typefaces from the early Renaissance through the Information Age.
- Used JavaScript along with D3 and Waypoints to assemble the data into an interactive tree visualization.

The Love Machine

December 2018 – March 2020

- Lead a team of 24 engineers to create a system which matched 1500 students at Georgia Tech with potential soulmates using genetic algorithms.
- Conducted follow up interviews with couples matched, analyzed data collected by the survey, and published a related article on “Towards Data Science” summarizing research and results using Tableau.

Systems Neural Engineering Lab

August 2017 – May 2019

- Completed a thesis on the use of DeepLabCut2 to estimate the pose of rats used in motor research.
- Built a system which simultaneously records from two high speed cameras using a Raspberry Pi.

EDUCATION

Georgia Institute of Technology

August 2016 - May 2020

BS Computer Science, Concentration: Artificial Intelligence and Human-Computer Interaction, GPA: 3.56/4

- Artificial Intelligence Club:
 - Communications Officer (Spring 2016 – Spring 2018)
 - President (Spring 2018 - Spring 2019)
- WREK Radio: Operator (Fall 2018 – Fall 2019)

University of New South Wales

August 2019 – January 2020

- Blitz Student Newspaper: General Assignment Reporter (September 2019 – January 2020)