**Brandon Harden**

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**\*\*\*** [**https://github.com/B-Harden/Portfolio**](https://github.com/B-Harden/Portfolio) **\*\*\***

**Education: Masters of Science in Data Science January ‘17 - May ‘18**

*Lipscomb University* (LU)

**Bachelor of Science in Economics August ‘10 - December ‘14**

*The University of Tennessee at Chattanooga* (UTC)

**Experience: Process Improvement Engineer February ’19 - *Present***

*HCA Healthcare (Nashville, TN)*

* Certified Lean Six Sigma Green Belt
* Automation Developer on Robotics Process Automation (RPA) Proof of Concept project.
* Involved in process improvement projects such as Software Licensing Optimization and Lawson Data Security.

**Developer Intern August ’18 – February ‘19**

*HCA Healthcare (Nashville, TN)*

* I report directly to the Director of IT&S Product Development Corporate Systems and accompany them during corporate meetings and interviews in order to gain experience at managing an IT team and IT projects.
* I assist HCA’s ERP Development Team implement data analysis into both their products and reporting using technologies such as SSRS and Power BI.

**Office Manager January ‘17 – August ‘18**

*Direct Access Coordination* (Brentwood, TN)

* Personal Assistant to company owner.
* I facilitated in the daily management of business records and office personnel.

**Metro Council Intern January ’16 – December ‘16**

*Davidson County Metro Council – District 29 Councilwoman Karen Johnson* (Nashville, TN)

* Personal Assistant to and mentored by District 29 Councilwoman Karen Johnson.
* Attended both Council and Committee meetings with Councilwoman Johnson.
* I assisted in various projects that aimed at advocating, engaging, and motivating local constituents into getting more involved with their community.

**Data Manager January ‘15 - January ‘17**

*Care Management Consultants, Inc.* (Brentwood, TN)

* Processed, organized and maintained data through physical and digital storage.
* Involved in Life Care Planning through critiquing and consolidation of patient data needed for reporting.

**Student Body Treasurer, Student Government Association (SGA) August ‘13 - May ‘14**

*The University of Tennessee at Chattanooga* (Chattanooga, TN)

* Managed approximately $100,000.00 on behalf of Student Government Association.
* Managed ledger accounts, tracked expenses, and created budgets for Student Government Association.

**Certificates:**

* **RPA Developer Advanced** by UiPath- 643183669487356432. Certificate earned at Sunday, December 12, 2019
* **Google Cloud Platform Big Data and Machine Learning Fundamentals** by Google Cloud on Coursera. Certificate earned at Thursday, May 17, 2018 7:37 PM GMT
* **Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization** by deeplearning.ai on Coursera. Certificate earned at Thursday, April 5, 2018 7:58 PM GMT
* **Neural Networks and Deep Learning** by deeplearning.ai on Coursera. Certificate earned on Tuesday, October 24, 2017 4:21 PM GMT
* **Programming for Everybody (Getting Started with Python)** by University of Michigan on Coursera. Certificate earned on Tuesday, November 22, 2016 12:35 AM GMT

**Projects (\*Please refer to GitHub):**

* **Neural Networks (Tensorflow)**
  + Using Tensorflow I created a *neural network* model that could predict hand written digits from the MNIST dataset.
* **Reinforcement Learning (Open.ai Gym)**
  + Using Open.ai Gym I built a *reinforcement learning* model that could solve the classic cart-pole control problem.
* **Machine Learning (Classification)**
  + Created and compared multiple classification prediction models in Scikit Learn that could predict, using medical data, which patients had diabetes and which did not. (Models: kNN, SVM, Decision Tree Classifier)
* **Machine Learning (Regression)**
  + Created and compared multiple regression prediction models in Scikit Learn that could predict the *energy output* from a *Combined Cycle Power Plant* (Models: Linear Regression, Ridge Regression, Lasso Regression, Polynomial Regression)
* **Natural Language Processing**
  + Analyzed 2016 US Presidential campaign debate speeches for the amount of ‘negative words’ they contained and the effect this had on their polls throughout the campaign trail.
* **Computer Vision**
  + Used OpenCV to perform multiple image transformations on digital input.
* **Google Cloud Products (Recommendation System)**
  + Using virtual machines within Google Cloud Products I created a *recommendation system* that suggested to potential travelers lodging accommodations based off previous searches and ratings/ reviews.
* **Google Cloud Products (Forecasting)**
  + Created machine learning models that could predict the demand for New York taxi cabs based off day-of-the-week and weather data, etc.

**Technical Skills:**

* Certified UiPath *Robotics Process Automation* (RPA) Engineer
* Certified Lean Six Sigma Green Belt
* Proficient in programming in Python, R, and SQL.
* Experienced in using Scikit Learn and Tensorflow.
* Proficient in creating and analyzing Machine Learning models.
* Proficient in using R Services in Microsoft Visual Studio.
* Experienced in using Microsoft Azure, Amazon Web Services (AWS) and Google Cloud Products (GCP).
* Experienced in creating Deep Neural Networks.
* Experienced in live broadcasting (video camera and network configuration), as well as hosting events.
* Competent in Bookkeeping and creating budgets.
* Great communication skills, team cooperation, time management, as well as possessing the ability to adapt quickly.
* Can understand and speak a little Japanese.

**Highlighted Coursework:**

* Statistical Analysis and Decision Modeling
* Information Structures
* Big Data Management and Analysis
* Data Mining and Analysis
* Introduction to Econometrics
* Economic Development
* Game Theory

**Activities and Honors:**

* ***Research Presenter*** - Lipscomb University Student Scholars Symposium, 2018
  + Presented my personal research titled “A Review of Virtual Reality for the Training of Robotics Control Policies”.
  + My research reviews the application of using human demonstrations in VR to train control policies for physical robots.
* ***Project Leade*r** - Hands on Nashville Day, 2015, 2016, 2017, & 2018
  + Most recently in 2018 I led a group of over 100 volunteers with completing beautification projects at John F. Kennedy Middle School in collaboration with Hands of Nashville.
* ***Best Lobbyist Award*** - Tennessee Intercollegiate State Legislature, 2013
  + Received the ‘Best Lobbyist Award’ for my skill at lobbying legislation and pursuing committee members at TISL.
* ***Representative in the House of Representatives*** - Tennessee Intercollegiate State Legislature, 2012
  + Created my own Legislative Bill which I presented and passed through the House of Representatives.
* ***Director of Education*** - Alpha Phi Alpha Fraternity Inc., August 2013- December 2014
  + Collaborated with city organizations on organizing engaging events for fraternity and university students.
* ***Chairman*** - Student Government Association District II College of Business, January 2013- May 2013
  + Advocated for the College of Business students’ desires and concerns within the department.
  + Collaborated with the Dean of the College of Business in creating and hosting open forums for students.
* ***Treasurer*** - National Pan-Hellenic Council, August 2012- May 2013
* ***Assistant Area Director*** - Alpha Phi Alpha Fraternity Inc., August 2011- May 2012
  + Created retreats and networking events for the fraternity’s TN undergraduate chapters.