Casey Justus

Portfolio: caseyjustus.net | linkedin.com/in/casey-justus | github.com/cnj6

EDUCATION

Cornell University- *Ithaca, New York* August 2018-May 2022

Bachelor of Science, **Information Science, Systems, and Technology** | Minor: Business for Engineers **GPA: 3.71**

Primary Concentration: Data Science | Secondary Concentration: Networks, Crowds, and Markets

Recognition: Dean's List Academic Honor (Fall 2018- Present)

PROFESSIONAL EXPERIENCE

General Electric Renewable Energy | Schenectady, New York June 2021-August 2021

Digital Technology Leadership Program Intern, Data and Analytics

- Supported Platform next generation initiatives for Data and Analytics team
- Built a REST API that retrieves raw material data, integrated it with GE product data, and created predictive pricing models tool for supplier negotiations
- Led a 4-week merge of an AWS RDS to an AWS Redshift datalake that simplified the architecture and decreased data/load environment failures
- Managed an API Layer implementation on AWS Redshift datalakes, delivering data to downstream applications without direct server interaction
- Organized weekly social events for all interns across the business

GlaxoSmithKline (Contracted to Atrium) | Raleigh, North Carolina May 2020-August 2020

Summer Intern, IT Platforms Analysis

- Used Azure Databricks to create 15 separate time-series 6-month sales projections for specific customer accounts and products using Python
  - Implemented Facebook's Prophet Model and used cross-validation to minimize the mean absolute percentage error
  - Created sales forecasts, seasonality trends, and performance metrics graphs based on the model I created
- Queried large datasets in an Azure data warehouse using Microsoft SQL Server Management Studio to gather specific data insights
- Created visualizations in Power BI to gain insights into product sales, territories, and accounts for a specific sales team

MetricWise Inc. | Bridgeton, Missouri June 2019 – July 2019

Summer Software Engineering Intern

- Worked closely with two advisors, who used my documentation to find bugs in the software causing the two servers to behave differently
- Used previous recordings to test two different servers by using the same commands and documenting all differences between them
- Created tests using Selenium IDE, which were recorded for future playback
- Accessed individual servers to collect usage data and then compiled spreadsheet reports

PROJECTS – Cornell University

County Election Prediction Neural Network November 2020-December 2020

- Created a Neural Network using Scikit-Learn's Grid Search model selection to produce a binary prediction (Democratic Party or Republican Party) on counties of the 2016 election given specific features which achieved 77.3% accuracy on an unknown dataset
- In addition to given features, created features for the change in birth and death rates between 2012 and 2016, as well as a KNN feature that uses neighboring counties' data to map each county to a list of its neighbors' IDs and identify how neighboring counties voted
- Worked closely with two partners in a Jupyter Notebook in Google Collaboratory

Musical Note Classification: Accuracy vs Runtime February 2021-May 2021

- Developed 7 predictive models to classify musical note images (whole, half, quarter, and sixteenth notes) using logistic regression, histogram gradient boosting trees, fully-connected neural network, and convolutional neural network algorithms
- Applied these models to 28x28 and 64x64 images for classification based on grayscale pixel values
- The most accurate model achieved a 0.9617 test accuracy on 28x28 images and 0.9599 test accuracy on the 64x64 images
- Analyzed how runtime was affected by the method and parameter selection used (grid vs randomized search), concluding that logistic regression is the most consistent between datasets with ~0.85 test accuracy and significantly shorter runtime than the other models
- Worked closely with three partners in a Jupyter Notebook in Google Collaboratory

Cornell Volleyball Website April 2020-May 2020

- Created a dynamic website for Cornell Volleyball recruits, alumni, and fans using HTML, PHP, CSS, JavaScript, and SQL in Visual Studio Code
- Included an image gallery that allows the user to upload images, add captions, delete images, add tags, and delete tags using GET and POST requests, as well as SQL queries to add and delete from the database
- Implemented a sticky form for recruiting using server-side form validation, input sanitization, and feedback

LEADERSHIP AND INVOLVEMENT

Cornell Women's Varsity Volleyball | **NCAA Division I Varsity Athlete** August 2018 - Present

- Developed leadership, teamwork, perseverance, and coachability skills through participation in an NCAA Division I program
- Committed to strenuous practice, conditioning, and travel schedule exceeding 30 hours per week throughout the academic year
- Organized and planned community service events throughout the regular season and off-season, including Hoops For Hope.

Big Red Leadership Institute | **Leadership Trainee** April 2018 - Present

Society of Women Engineers | **Active Member** March 2017 - Present

SKILLS

Programming/Languages: Proficient in Python, Java, SQL, R, MATLAB, PHP, HTML, CSS

Systems: Power BI, Tableau, Dataiku, Databricks, Microsoft SQL Server Management Studio, "Windows Server 2016," "Mac OS X," Microsoft Office (Excel, Office, PowerPoint), "G Suite"

Platforms: Amazon Web Services, Azure Cloud, Selenium IDE