

Victoria Puck-Karam

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EDUCATION

The Pennsylvania State University

College of Electrical Engineering and Computer Science
Bachelor of Science in Computational Data Science
Minor in Mathematics and Engineering Leadership Development

University Park, PA
May 2024

RELEVANT EXPERIENCE

JP Morgan Chase & Co.

Software Engineer Intern

Wilmington, DE
June 2023 - August 2023

- Leveraging Spring Boot to create a production ready Java service
- Conducted unit and integration testing with Cucumber and Mockito, achieving a test coverage rate of 98.2%
- Spearheading the development of a Kubernetes-hosted Java back-end service for data pipeline management, alleviating a critical pain point for 20+ developer teams
- Engineering data decryption, parsing, and Kafka listener functionalities, efficiently handling over 10,000 messages per minute from Kafka consumers
- Implementing a streamlined CI/CD pipeline by integrating Jenkins and Kubernetes, automating the building, testing, and deployment of the Java service

MAXAR Intelligence Inc.

Data Science Intern

Westminster, CO
May 2022-August 2022

- Surfacing actionable insights from large-scale historical sales and geospatial data sets
- Visualizing data using an ESRI dashboard to advise effective data-driven decision making
- Executing the business understanding step of the data science life cycle by facilitating interdisciplinary communication to translate client, product manager, and sales team asks
- Automating robust ETLs (python & SQL) using an Apache Airflow server (AWS) to ingest data from S3 buckets into PostgreSQL RDS
- Deriving data understanding through performing statistical analysis using Scikit learn

Penn State University

Research Assistant

University Park, PA
August 2020-May 2022

- Developing Python algorithms to automate data analytics of elements in Digital Healthcare to draw insights about the accessibility of essential healthcare services.
- Utilizing web-harvesting technology to extract data from 10,000 US hospitals' user interfaces
- Normalizing and wrangling web scraped data for analysis

World in Conversation

Facilitation Intern

University Park, PA
August 2021 -December 2021

- Exercising adaptive leadership techniques to establish open communication and mutual trust
- Managing conflict in small groups for an entire semester by allowing space for all ideas and beliefs

Qualcomm

Research Intern

Tysons Corner, VA
September 2019- July 2020

- Simulating real life communications between IoT devices within a typical home using AWS IoT CloudFormation
- Employing Arduino technology for a robot connecting sensors for autonomous maneuvering

LEADERSHIP POSITIONS

- **Engineering Undergraduate Council:** Chair of Technology
- **Association for Women in Computing:** Chair of Professional Development
- **Phi Sigma Rho STEM Sorority:** Public Relations Chair

AWARDS

- **National Center for Women In Technology-** National Honorable Mention, 2020
- **National Center for Women In Technology-** State Winner, 2020
- **Jones Engineering Scholarship-** Penn State 2022
- **Eta Kappa Nu Honor Society-** Penn State 2023

PROJECTS

Supply & Demand Dashboard: Building a dashboard to visualize supply and demand metrics, with a rendered web map containing layers to uncover supply insights to support the sales team in seeking out contracts, sales/building prospects, and optimizing the creation of realistic customer expectations.

X-READ: Designed a CNN Machine Learning algorithm, trained with a National Institute of Health (NIH) X-RAY database, to diagnose illnesses from an X-RAY scan to combat the rural healthcare crisis.

Spot-Suggest: Creating a selection of music suggestions based on several musical metrics, using the cosine similarity calculations & vectorized data to return 40 songs that are mathematically most similar.

Spot-Plot: Visualizing users' listening history in the moral alignment plane; format popularized on social media. Plotting values based on attributes of the users' song history such as acousticness, speechiness, time signature, etc. Using the Spotify API, connected using spotipy, used to extract users recent listening history, using the "user-read-recently-played" scope. Graphics created using data visualization tool matplotlib.

Covid Vaccination Analysis: Identifying and understanding trends in Covid vaccination data between various demographic and geographic features. Programmed in R, using the tidyverse, mosaic and lubridate libraries. Data visualization done using ggplot functionalities. Data sourced from the CDC Covid-19 dashboard and the Bureau of Labor Statistics.