Cedric Vicera

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EDUCATION

University of Pennsylvania — Expected May 2023
Master of Computer and Information Technology

University of Arizona — May 2020
Bachelor of Arts in Philosophy (with Honors)

SKILLS

Languages Python, R, Java, SQL

Technologies pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, dplyr, ggplot2, R Markdown, Git, Jupyter

EXPERIENCE

CVS Health — Jun 2022 – Aug 2022
Data Science Intern · Analytics & Behavior Change Team

University of Pennsylvania — Dec 2021 – Jan 2022
Research Assistant · Computational Social Science Lab

- Task implementation (Empirica, React, Meteor) for high-throughput experiments on group dynamics.

St. Jude Children's Research Hospital — May 2021 – Jul 2021
Biostatistics Research Intern

- Wrangled pediatric oncology patient health records to visualize several average temporal trends in patient BMI based on presence versus absence of bacteria species pair.
- Implemented a linear mixed-effects model (R) to identify 3 bacteria species pairs correlated with elevated post-treatment BMI.
- Conducted hypothesis testing and presented results in a research seminar and wrote a manuscript (R Markdown) detailing project methods and discussion.

University of Arizona College of Engineering — Aug 2018 – May 2020
Research Assistant · Computational Medicine and Informatics Collaboratory

- Wrote scripts (Python/pandas) to extract critical care telemedicine data to analyze failure rates and temporal differences between noninvasive ventilation strategies of 10K+ patients.
- Identified patient personas and generated Sankey diagrams to visualize 9 patient subgroup outcomes.
- Applied logistic regression (R) to show that NIPPV patients have an increase of 16.8% in mortality compared to HFNI patients, who carry a 6.6% increase in mortality.

PROJECTS

COVID-19 Risk Factor Predictor *Python (Flask, pandas), HTML/CSS* — cedricvicera/CovidRFP

- Developed a full-stack web application to display an analysis of identified COVID-19 risk factors for a user.
- Implemented front-end (HTML/CSS) and back-end services (Python/Flask).
- Conducted data analysis (Python/pandas) by leveraging CDC COVID-19 Public Data to compute user results.

PUBLICATIONS

P. Essay, **C. Vicera**, J. Mosier, V. Subbian. Analysis of Acute Respiratory Failure Patient Noninvasive Ventilation Therapy. *American Thoracic Society International Conference.* 2020.

C. Vicera. Persona Identification in Tele-ICU Data of Mechanically Ventilated Patients. *UROC Abstract Review.* 2019.