Shaun Porwal

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in Shaun Porwal
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Education

Icahn School of Medicine at Mount Sinai March 2021
Master's in Biomedical Data Science (MS)

Rutgers University - New Brunswick May 2019
Bachelor's in Biomedical Engineering, Chinese (BE)

Projects

`dcurves` Python Library - https://decisioncurveanalysis.org

- Developed Python package (GitHub Link, PyPI Link) implementing Decision Curve Analysis to evaluate binary and survival models; over 20k downloads

- Built and maintain decisioncurveanalysis.org, an instructional website with a technical forum for DCA users, answering advanced user questions (links: 1, 2, 3)

Experience

Memorial Sloan Kettering Cancer Center March 2021 to Present
Data Analyst/Engineer New York, NY

- Engineered data pipelines with SQL-extracted institutional data and wrote statistical code for Amplio, allowing sarcoma, melanoma, whipple, gastrectomy, and liver surgeons to see patient outcomes

- Developed AI-driven radiology pipeline, fine-tuning Llama3.1 and image segmentation models, with results visualized via an interactive RShiny dashboard

- Led statistical analyses for a landmark study on post-chemotherapy RPLND policies in testicular cancer, applying cutting-edge methods (GAM, logistic regression, Kaplan-Meier, CoxPH, DCA) to produce actionable insights (coming soon)

- Conducted a hospital-wide patient comorbidity analysis using survey data, validating with Posit's 'pointblank,' and demonstrated the survey's effectiveness in improving billing accuracy for patient visits

Sema4 February 2020 to February 2021
Bioinformatics Intern Stamford, CT

- Automated large mutation detection for whole genome sequencing (WGS) data with Bash, DRAGEN, and AWS S3/EC2

- Designed a pipeline to clean and compare results from mutation detection algorithms (e.g., DRAGEN) to explore the origin different pancreatic tumors

- Visualized genomic data using R & Python to present findings to my research group and capstone defense committee

Languages

Mandarin Chinese ●●●●●

Hindi ●●●●●

Japanese ●●●○○

Spanish ●●●●○

Publications

https://scholar.google.com/citations?hl=en&user=eR7hro0AAAAJ