Patrick Schmitt

Location Pittsboro, NC

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New graduate with 4 years of experience in software engineering. Did work in a team of biomedical data science researchers. Used classification systems for marketing and advertisement. Experience with remote work environments.

Education

2018-2022 The University of North Carolina at Chapel Hill

B.S., Statistics and Analytics
B.S., Mathematics
Minor, History
Phi Beta Kappa. 3.65 STEM GPA.

Relevant Coursework

Object Oriented Programming, Data Structures and Algorithms, Statistical Machine Learning, Mathematical Statistics, Optimization, Regression Analysis

Experience

Jan 2021 - Jul 2021 The Looma Project
Software Engineering Intern

- Did data analysis of videos with Google Cloud Platform APIs, scikit-learn and python video libraries to provide insights on advertisement effectiveness. Built a system to automatically aggregate and transform information about a video from multiple APIs.

May 2018 - Aug 2021 Renaissance Computing Institute
Software Engineering Intern

- Worked with a hybrid-remote team of researchers as part of the NIH Biomedical Data Translator program. This program aims to construct a centralized knowledge system for biomedical discovery.
- Wrote production code and developed new algorithms to generate high dimensional patient data within REST APIs. Developed statistical methods for making inferences about missing data. This work resulted in multiple publications.
- Developed front end software using React and Neo4j to present information about graphs and networks to users. Debugged backend API code in Python.

Publications and Projects

- *A Framework for Estimating the Bounds of Contingency Tables: Application to an Open Clinical Research Service.* Technical Report, TR-22-01, Renaissance Computing Institute. https://renci.org/technical-reports/tr-22-01/
- *Open application of statistical and machine learning models to explore the impact of environment exposures on health and disease: an asthma use case.* IJERPH. Under Review.
- *HackDuke 2021.* Won 2nd place out of 32 in the education for social good category for a project based around modeling student knowledge with markov models.
- *Predicting Online Shopper Intentions.* Machine learning project done for a class. patlsc.github.io/565.pdf
- *Unity Economic Simulation Game.* Personal Project. A game made with C# in Unity that models a global economy as a system of individual agents. https://github.com/patlsc/unityecongame

Skills

Experience with Javascript and C# for application programming. Experience with Python and R for data science. Proficient with HTML, CSS, LaTeX, SQL.