Ryan Schrader

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TECHNICAL SKILLS

Languages: Proficient with Python, R, and SQL. Familiar with C++, C#, JavaScript, and HTML/CSS
Tools: AWS (EC2, S3, Redshift, SageMaker)

EXPERIENCE

Amazon *June 2019 - November 2020*
Data Scientist

- Produced a survival regression model in **Python** to predict subscription retention across the Amazon Kids+ business, to be used as a candidate for informing multi-year financial projections. Built a testing framework to compare various modeling experiments and backtest dates, and presented the findings in technical reports to stakeholders
- Deployed machine learning scientist colleague's algorithms into reusable end-to-end systems utilizing **AWS**
- Developed a web application prototype in **Python** to investigate subscription retention trends across various customer characteristics, enabling self-service analytics amongst business stakeholders
- Automated the Amazon Kids+ weekly business report, reducing production time by 90% whilst enhancing iteration
- Monitored and incrementally enhanced ETL pipelines critical for business reporting functions
- Resolved ad hoc analyses using **SQL** and **Python** for business stakeholders, enabling data-driven decision making
- Mentored non-technical business partners regarding how to use **SQL** to pull basic statistics and trends

Epic *April 2016 - March 2018*
Software Developer & Data Scientist

- Developed a predictive model in **R** to forecast patient arrival counts in an emergency department as well as predict anomalous arrival surge events, empowering directors to proactively allocate resources to meet demand
- Performed literature reviews and interviewed domain experts in support of model development and operationalization
- Built a time series forecasting framework in **R** that simplifies and enables fast data exploration, model training, and model validation, thereby speeding up developer velocity for time series-specific investigations
- Peer reviewed model implementation workflow proposals, regression and classification modeling code (**R**, **Python**), and machine learning infrastructure code (**SQL**, **C#, JavaScript**, **Caché**)
- Mentored colleagues on time series analysis, anomaly detection, and predictive model development
- Maintained customer relationships with analytics teams and executives as one of Epic's data science liaisons, advocating for the customer's desired predictive use cases and collecting feedback for ongoing investigations
- Communicated analytic results to technical and non-technical stakeholders, from within Epic and from customers

ProQuest *January 2015 - December 2015*
Student Software Developer – *Multidisciplinary Design Program at the University of Michigan*
Project – *Professional Researcher Activity Analysis and Prediction*

- Developed a web application within a multidisciplinary team to analyze user log data of an online information service, enabling analysts to identify the cause of bottlenecks within customer workflows and act upon them

Epic *Summer 2014 & Summer 2015*
Software Developer Intern
Summer 2015

- Implemented a RESTful web service API in **C#** to support Apple Wallet digital cards, enabling patients to easily access their health insurance information. Integrated with the Apple Push Notification Service for real-time updates

Summer 2014

- Developed a web application prototype in **JavaScript** to track the location and status of patients as well as monitor the occupancy status of rooms in a clinical setting, permitting clinicians to efficiently locate and transfer patients

EDUCATION

Currently pursuing the *Google Cloud Professional Machine Learning Engineer* certification

University of Michigan – *Ann Arbor, MI* *December 2015*
Bachelor of Science in Engineering: Double Major in Computer Science and Data Science GPA: 3.55