Ryan Beauchemin

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Experience

AUG 2020 - CURRENT	**Senior Manager Data Science and Analytics,** *Lowe's Home Improvement*

As the Data Science leader for Merchandising at Lowe's with a team of 17 in the US and Bangalore, we created the Clustering and Assortment Planning Suite, the Space Optimization Kit, and Vendor Freight Optimization. These applications and the support we provide for them drives 2x in merchandising productivity with an incredibly efficient deep neural net model, with results explained simply via a UX-focused React application layer. More recently, I have joined the Platform team and taken the role of Sr SWE Manager, still leading a Data Science group, to build out autonomous Anomaly Detection for Data Scientists across Lowe's. This employs a novel technique of multi-modelling to create a powerful meta-algorithm capable of finding hard to detect anomalies.

JUL 2019 - AUG 2020	**Principal Data Scientist,** *Lowe's Home Improvement*

As principal, my main goal was to get a set of data driven utilities ready for various aspects of the merchandising community at Lowe's. With only four people, we were able to deliver a RNN-based demand model and expand the team to continue work, as well as a vendor freight optimization tool and a space optimization tool, driving measured incremental value in the millions and billions for margin and revenue respectively.

DEC 2017 - JUL 2019	**Senior Data Scientist,** *Lowe's Home Improvement*

As a senior, I had the opportunity to form the Data Science team responsible for recommendations and personalization to take over my previous work. I learned and shared knowledge with the whole Data Science group on Agile methodology and cloud-based systems to align with modern practices, after being first to join the cloud within Lowe's Data Science. I also finalized transitioning algorithms originally created in Alteryx into more scalable and sustainable SQL scripts, before starting a new team in merchandising that would start tackling what is essentially recommendations for brick-and-mortar.

FEB 2017 - DEC 2017	**Data Scientist,** *Lowe's Home Improvement*

As a founding member of Lowe's Data Science, I had the opportunity to interview and hire to start building the data science practice at Lowe's that was created in Feb 2017. During this time, I also automated product recommendations algorithms bringing a 13% improvement recommendations visibility with hundreds of millions in incremental revenue tested in an A/B framework. During this time we had a shift to focus on both digital and the rest of the enterprise. The enterprise shift led us to open many new connections and work on projects across new organizations.

AUG 2015 - FEB 2017	**Data Analyst,** *Nabler / Lowe's Home Improvement*

Starting with just 3 analysts in Lowes' digital team, I wanted to beat Adobe with my own algorithms utilizing product and user data to create personalized recommendations. I trained models on orders, cart additions, views and revenue to optimize the experience. This work beat Adobe by 250% in incremental revenue, allowing us to end a $7M contract and make the case for data science at Lowe's.

JUN 2013 - AUG 2015	**Research Assistant,** *NC Astronomy Research Center & UNC Astronomy*

As a part of the RESOLVE team under Dr. Sheila Kannappan, I have been trained in dynamic observation, reduction of data, and instrumentation for the 4.1-meter Chilean SOAR telescope, and my research involved determination of three dimensional information from two dimensional projections.

In Dr. Dan Reichart's group, I helped in the creation of the largest database for Gamma Ray Burst afterglows, working heavily with spreadsheets and data manipulation in a massive SQL database. I was also an assistant in the lab component of the Introductory Astronomy course at UNC.

I designed informative videos using iMovie and Keynote, gave presentations on solar phenomena with an H-alpha filtered solar telescope, and developed tools to determine intrinsic properties of spiral galaxies.

In 2017, our team was featured with an image I took of the first ever discovered Double Hoag's galaxy.

Education

2022	MS Computer Science,	*Georgia Institute of Technology*
2015	BS Physics,	*University of North Carolina at Chapel Hill*

Proficiencies

Science	**Python**, Tensorflow, Keras
Frontend	**React**, Flux/Redux, JavaScript, Node, Streamlit
Backend	**NodeTS**, FastAPI, NodeJS, express
Data	**Druid**, **Presto**, **Hive**, HDFS, Teradata, PostGres, and more SQL
CICD	**Git**, **Jenkins**, Spinnaker, GCR, Oozie
Cloud	GCR (+Docker), GCS, Kubernetes Engine, BigQuery, BigTable