

# RYAN BEAUCHEMIN

RYAN.W.BEAUCHEMIN@GMAIL.COM

ASHEVILLE, NORTH CAROLINA

+1 (919) 628 6854

## EXPERIENCE

PEACOCK 2022 - NOW	<p>Director and Acting VP of Data Science, Personalization and Recommendations</p> <ul style="list-style-type: none"><li>As Director, I am continuing building on our suite of Home page and PDP personalization and also expanding my scope.</li><li>I extended into new work with Search, Marketing, and Merchandizing, and increased leadership to a team of 12.</li><li>I have completed multiple Generative AI projects to expand data sources and support our existing models.</li><li>As the acting Vice President, I am also actively assessing 3-5 year plans and presenting in Steering Committee meetings.</li></ul> <p>Sr. Manager of Data Science, Personalization and Recommendations</p> <ul style="list-style-type: none"><li>As Senior Manager with a smaller team of only 3, I have been able to drive total lifts of more than 3% in hours and 1% in streaming days during AB tests, contributing to tens of millions in incremental ad and subscriber revenue.</li><li>We have built graph neural network solutions, time-series models, fully connected transformer models, NLP embeddings, and Reinforcement Learning solutions to support the creation of the over 20 models that now support the entire global suite under NBCU: Peacock, Sky Showtime, and Showmax.</li><li>We created an application for executives, editors, and product teams to explain and visualize our models for transparency.</li></ul>
LOWE'S 2015 - 2022	<p>Sr. Manager of Data Science and Analytics</p> <ul style="list-style-type: none"><li>With a team of 17 in the U.S. and Bangalore, I expanded on our solutions for freight, space, and assortment optimization.</li><li>We developed an internal tool that gave merchants the power to estimate profit and margin of any item assortment in any set of stores, providing a way to negotiate with vendors and make the best decisions on what to stock in every store.</li><li>Our assortment planning work led to 2x in merchandising productivity with an incredibly efficient deep neural net model visualized via a UX-optimized React application layer.</li><li>Later, I led an ML platform team, building SSO-integrated MLflow, easier database utilities, and created an automated outlier detection mechanism employing a novel technique of multi-modelling to create a powerful meta-algorithm.</li></ul> <p>Principal Data Scientist</p> <ul style="list-style-type: none"><li>As Principal, I led and contributed with 4 people to deliver demand prediction neural net model rivaling IBM and SAS models in place at the time, with the capability of learning with pricing, promotion, freight, space, and assortment.</li><li>I created a vendor freight optimization tool and a space optimization tool, together driving measured incremental value in the hundreds of millions and just under a billion for margin and revenue respectively.</li><li>I ran SQL, Cloud and Agile process training for the entire department of over 100 data scientists, analysts, and engineers.</li></ul> <p>Senior Data Scientist</p> <ul style="list-style-type: none"><li>As Senior, I built 30 more models, tested with a further lift of 13%, leading to hundreds of millions in incremental revenue.</li><li>I focused on automation and helped hire and train new people to take over my models in recs and personalization.</li><li>I expanded into Lowe's first projects in merchandising, marketing, and store operations, working as a one-man startup.</li><li>We hired 80 data scientists to expand on the projects I started and sold to internal stakeholders during this time.</li></ul> <p>Data Scientist</p> <ul style="list-style-type: none"><li>As the first data scientist at Lowe's, my first model won an AB test against Adobe with a 250% lift in incremental revenue.</li><li>I reduced cost by \$7 million/year after ending a contract and my success led to us expanding our data science program.</li><li>I built 20 more models to support the home page, search, and product detail pages, driving 15% lift in new surfaces.</li></ul>
ACADEMIA 2012 - 2015	<p>Astrophysicist, <i>NC Astronomy Research Center &amp; UNC Astronomy</i></p> <ul style="list-style-type: none"><li>With Dr. Sheila Kannappan, I ran dynamic observation, processed raw telescope data in Python and Fortran, and ran imaging for the 4.1-meter Chilean SOAR telescope, focusing on <a href="#">determination of 3D galaxy movement from 2D projections</a>.</li><li>With Dr. Dan Reichart, I worked on cataloging the largest database for Gamma Ray Burst afterglows, writing updates to a SQL database. In addition, I was a teaching assistant for the Introductory Astronomy course at UNC.</li><li>With Dr. Patrick Treuthardt, I determined <a href="#">relationships between galactic dust lane structure, axial ratios and pattern speeds</a>, analyzing data on large screens where museum patrons could watch and ask questions. We were featured in Wired and CNN after I discovered <a href="#">the first Double Hoag's galaxy</a>. In addition, we ran interactive H-Alpha telescope sessions for patrons to safely observe the sun.</li></ul>

## EDUCATION

2022	Master's Degree in Computer Science, <i>Georgia Institute of Technology</i>
2015	Bachelor's Degree in Physics, <i>University of North Carolina at Chapel Hill</i>

## EXPERTISE

AI/ML	Python, Keras, Tensorflow
Software	Streamlit, React, Flux/Redux, NodeTS/JS, FastAPI
Data	Druid, Presto, Hive, HBase, Teradata, Postgres, and other SQL/NoSQL variants
CICD	Git, Jenkins
Cloud	GCP, AWS