

# RYAN BEAUCHEMIN

## CONTACT

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## EXPERIENCE

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| AUG 2015 - CURRENT  | <b>Behavioral Algorithm Developer / Data Analyst at Nabler, <i>Mooresville</i></b><br>On the Personalization and Optimization team at Lowe's Home Improvement's dot com division, I create algorithms utilizing merchant and user data to provide visitors with intelligent and personalized recommendations. I also analyze clickstream, orders, cart additions, and revenue to optimize the experience. |
| JUN 2014 - AUG 2015 | <b>Research Assistant at the Department of Physics and Astronomy, <i>UNC</i></b><br>As a part of the <b>RESOLVE</b> 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.               |
| JAN 2014 - AUG 2014 | <b>Research Assistant at the Department of Physics and Astronomy, <i>UNC</i></b><br>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.  |
| OCT 2013 - MAY 2015 | <b>Teaching Assistant at the Department of Physics and Astronomy, <i>UNC</i></b><br>I was an assistant for two years in the lab component of the University of North Carolina's Introductory Astronomy course. Teaching people about subjects that I deeply understand is incredibly rewarding.   |
| JUN 2013 - OCT 2013 | <b>Summer Intern at the Astronomy Research Center, <i>Raleigh</i></b><br>Working with Dr. Rachel Smith and Dr. Patrick Treuthardt, I designed informative videos using iMovie and Keynote, gave presentations on solar phenomena with an H $\alpha$ filtered solar telescope, and used IRAF to determine intrinsic properties of spiral galaxies.   |
| JAN 2013 - JUN 2013 | <b>STEM Lab Assistant at Wake Technical Community College, <i>Raleigh</i></b><br>The STEM lab was created by the Math club and was a great introduction into teaching. I mostly worked with students who needed help with coding, physics, math, and astronomy.   |

## EDUCATION

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| JULY 2015 | <b>Bachelor of Science Degree in PHYSICS, University of North Carolina, Chapel Hill</b><br>Major: Astrophysics   <i>Emphasis on Galaxy Evolution and Dynamics</i><br>GPA: 3.0/4.0 |
| JULY 2012 | <b>Associate Degree in SCIENCE, Wake Technical Community College, Raleigh</b><br>Graduated with the highest honors   <i>Emphasis on Physics and Astronomy</i><br>GPA: 4.0/4.0     |

## SKILLS

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Programming / Analysis: Alteryx, Aqua Data Studio, Emacs, Git, Hadoop, IDL, JavaScript, Mathematica, MATLAB, **Python**, R, SQL, Teradata, XML in Linux, Mac OSX, and Windows environments

Presenting and Design: Adobe Photoshop, GIMP, Keynote,  $\text{\LaTeX}$ , Libre/MS Office

Specialized Astronomy: DS9, GAIA, IRAF, RESOLVE Pipeline

## GROUPS AND ORGANIZATIONS

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2014-2015 Member of Dr. Kannappan's RESOLVE team at UNC

2014-2015 Resource Manager of UNC's Society of Physics Students

2014-2015 Member of Accessibility Resources team at UNC

2013-2015 Member of Dr. Dan Reichart's GRB team at UNC

2013-2015 Member of UNC's Society of Physics Students

2012-2013 National Community College Aerospace Scholar at NASA MSFC

2012-2015 Member of the Mu Alpha Theta Math Honor Society

2011-2012 Senator of the Student Government at Wake Technical CC

2011-2015 Member of the Phi Theta Kappa Honor Society

2010-2013 Officer of Wake Technical CC's Math Club

## AWARDS AND CERTIFICATES

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2015 Certificate of completion of Penn State Astrostatistics course

2015 Recipient of SKYNET Undergraduate Research Scholarship

2014 UNC OUR Travel Grant for American Astronomical Society 225<sup>th</sup> Meeting

2014 Beneficiary of NSF CAREER Award Supplement

2013 Recipient of North Carolina Space Grant for Undergraduates

2013 Accepted as student astronomer at NRAO WV for ERIRA-UNC

2013 Second place at the southeast regional calculus competition in GA

2012 First place at the North Carolina Calculus competition in Gastonia

2012 Second place at NASA MSFC NCAS rover competition

2012 Third place school-wide SML competition through AMATYC

## LANGUAGES

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ENGLISH: Native

FRENCH: Conversational

## RESEARCH INTERESTS

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Galaxy Evolution and Morphology, Dark Matter, Data Science, Gamma Ray Bursts, Kinematics leading to Star Formation, Instrumentation, Radio Astronomy, Statistics, and Simulation.