

Clark Casarella, Ph.D.

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SUMMARY OF QUALIFICATIONS

- Analytical skills: 5+ years experience in data collection and statistical analysis of 1-2GB large data sets, using self-designed algorithms to yield qualitative interpretation and quantitative results.
- Programming skills: 6+ years experience with UNIX shell scripting; 5 years experience with Wolfram Mathematica, GNUPlot4; intermediate fluency with Python3 (numpy, scipy, pandas) and SQL querying; introductory experience with Tableau, git, C++, and Java.
- Communication skills: 4+ contributed talks at national science conferences, with 7+ years of scientific collaboration.
- Writing skills: co-authored 5+ scientific papers published in top nuclear physics journals and devised training manuals for various software/analysis packages for fellow graduate students.

PROFESSIONAL EXPERIENCE

University of Notre Dame

Graduate Research Assistant

Notre Dame, IN

2011 - present

- Performed detailed quantitative analysis of large, event-based data sets using Mathematica, Python3, and FORTRAN77 scripts.
- Carried out programming tasks such as sorting and cleaning data, linear regression, multivariable regression, Gaussian peak-fitting, and aggregation of statistical results.
- Prepared focused, concise summaries of key qualitative results and interpretation of quantitative analysis.
- Adhered to strict time schedules and techniques to ensure efficient data analysis across multiple experiments.

Triangle Universities Nuclear Laboratory

Undergraduate Research Assistant

Durham, NC

Summer 2010

- Maintained critical data collection systems for nuclear physics studies.
- Gained exposure to powerful C++ based statistical analysis packages.
- Utilized numerous linear regression models for experimental data analysis.

EDUCATION

University of Notre Dame, Notre Dame, IN

Doctor of Philosophy, Nuclear Physics

March 2017

University of Notre Dame, Notre Dame, IN

Master of Science, Physics

December 2014

University of North Georgia, Dahlonega, GA

Bachelor of Science, Physics

May 2011

HONORS

- Outstanding Senior Physics Graduate, (University of North Georgia 2011)