

# Curriculum Vitae

## Nicholas Paul Taliceo

### Professional Address

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### EDUCATION

#### **Master of Science, Geospatial Information Sciences** May 2018

The University of Texas at Dallas, Richardson, Texas  
– Published Work: Taliceo, N.P., & Griffith, D.A. (2018). *The  $K_4$  graph and the inertia of the adjacency matrix for a connected planar graph*. *Studia KPZK*, 183. pp. 185 – 210.

#### **Bachelor of Arts, Mathematics** May 2016

Westfield State University, Westfield, Massachusetts  
– Minor in Earth Systems Science  
– Certificate in Geographic Information Systems  
– Graduated with Latin Honors *Summa Cum Laude*  
– Graduated with the distinction of *Commonwealth Honors Scholar*  
– Senior Honors Thesis: *Intercardinal Adjacencies: A New Landscape Metric*  
– Overall GPA: 3.934    Major GPA: 4.000

#### **Diploma** June 2012

Agawam High School, Agawam, Massachusetts  
– GPA: 4.26 on a 4.5 scale

### PROFESSIONAL EXPERIENCE

#### **The Travelers Companies, Inc.**, Hartford, CT

*Data Scientist* April 2023 – Present

- Build predictive models, provide project support, and assist in the design and development of analytics solutions within Business Insurance Analytics & Research, serving the Small Commercial BOP product.
- Assist in setting and managing expectations with business partners; communicate analysis and insights.
- Conduct requisite analyses, provide technical and quantitative support for predictive modeling; support geospatial modeling projects and implementation tasks.

*Senior Associate Data Scientist*<sup>\*†</sup> April 2021 – April 2023

- Build predictive models and provide project support within business insurance analytics & research, serving the small commercial multi-peril line of business.
- Conduct requisite analyses and provide technical and quantitative support for predictive modeling.
- Interact with business partners to identify questions and issues for data analysis, using statistical and machine learning algorithms to build sophisticated models to solve important business problems.
- Support geospatial modeling projects and implementation tasks.

*Consultant, Analytics & Research – LDP* June 2018 – April 2021

- Build predictive models and provide project support, contributing to business insurance analytics & research, serving the small commercial multi-peril line of business.
- Conduct requisite analyses and provide technical and quantitative support for predictive modeling.
- Support geospatial modeling projects and implementation tasks.

*Analytics Intern, Actuarial & Analytics – LDP* June 2017 – August 2017

- Worked on individual and collaborative advanced analytics and geospatial projects in the personal insurance, research and development (PI R&D) department.
- Validated and performed data analysis tasks, as well as provided qualitative and quantitative data support.

**The University of Texas at Dallas, Richardson, TX**

*Graduate Teaching Assistant* August 2016 – May 2018

- Assist students struggling to understand course material and provide GIS support for in-class applications for the Geospatial Information Sciences department.
- Courses assisted include: Urban Economics, Spatial Statistics and Econometrics.

**Westfield State University, Westfield, MA**

*Peer Tutor* June 2016 – August 2016

- Tutored summer mathematics courses (elementary statistics, mathematical applications, math workshop) in the Urban Education Summer Bridge Program.

*Peer Tutor* January 2015 – May 2016

- Assist students struggling to understand course material in mathematics, GIS, and earth science in individual and group tutoring sessions.

*Research Assistant* June 2015 – August 2015

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<sup>\*</sup>This position was formally *Sr. Consultant, Analytics & Research* until September 2021 at which point the job family modernized naming conventions.

<sup>†</sup>This position was associated with the Data Science Leadership Development Program until July 2021. Upon graduation from the development program, the position converted to its current role.

- Conducted mathematical research under the 2015 Research Experience for Undergraduates (REU) and the WSU Mathematics Department.
- Applied mathematics research aimed to determine a new landscape metric for the landscape ecology discipline which will be used in GIS software.
- The research conducted is the topic of my WSU Honors Thesis.

*Teaching Assistant, Urban Education Summer Bridge Program* June 2015 – August 2015

- Provided instructional support in MATH 099: Math Workshop for incoming, underperforming students.
- Offered one-on-one instruction during class for students needing additional assistance.
- Developed and implemented lessons on polynomials, and quadratic and linear equations.
- Created a formative assessment to evaluate student learning.

### **PROFESSIONAL CERTIFICATION**

- Certificate in Geographic Information Systems. Westfield State University, 2016.

### **PUBLICATIONS**

- Taliceo, N.P., & Fleron, J.F. (2021). *A Prime Example of the Strong Law of Small Numbers*, Mathematics Magazine, 94:1, 59-61, DOI: 10.1080/0025570X.2021.1843961.
- Taliceo, N.P., & Fleron, J.F. (2019). *Maximum number of intercardinal adjacencies among all  $n$ -celled polyplets*. The On-Line Encyclopedia of Integer Sequences. <http://oeis.org/A325946>.
- Taliceo, N.P., & Griffith, D.A. (2018). *The  $K_4$  graph and the inertia of the adjacency matrix for a connected planar graph*. Studia KPZK, 183. pp. 185 – 210.

### **FEATURE ARTICLES**

- *Westfield State alumnus and professor co-author article to be published in Mathematics Magazine*. Westfield State News. October 07, 2020.
- *Alumni Accounts: Nicholas P. Taliceo*. Westfield State University, Department of Mathematics Career Profiles. 2019.
- *Nic's Story*. Discovering the Art of Mathematics Blog. November 08, 2015.

### **TECHNICAL SKILLS**

*Symbolic skill rankings from least to most knowledgeable are: novice (★), proficient (†), and advanced (‡).*

## Software

- ESRI's ArcGIS Suite (ArcMap 10.8+, ArcGIS Pro 2.6+)‡
- ESRI's mobile apps (ArcGIS, Collector, Explorer, and Survey123)†
- SAS Enterprise Guide‡
- LINGO 17.0\*
- SketchUp 2017‡
- Microsoft Office Suite, including: Word, PowerPoint, Excel, Outlook, OneNote, and Publisher‡
- GNU Image Manipulation Program\*
- GeoGebra†
- FRAGSTATS†

## Programming Languages

- Python‡
- R‡
- SAS‡
- L<sup>A</sup>T<sub>E</sub>X‡
- HTML/CSS†
- Wolfram Mathematica\*
- FORTRAN\*
- MATLAB\*

## Operating Systems

- Microsoft Windows‡
- macOS‡
- Google Android (Mobile)‡
- Apple iOS (Mobile)‡

## Web-Based Tools

- Google Drive Suite (Docs, Sheets, Slides, Maps, Forms, Sites, and Earth)‡
- OpenStreetMap†
- WordPress and other web design software‡
- ESRI's ArcGIS Online‡

## Statistical Skills

- Graphical techniques for data analysis
- Probability
- Discrete and continuous probability distributions
- Random variables
- Statistical inference
- Covariance/correlation analysis
- Linear and non-linear programming problems
- Linear and non-linear regression

## MEMBERSHIPS

Society for Industrial and Applied Mathematics, Member (Sept. 2017 – Present)  
New England Chapter of the Urban & Regional Information Systems Association  
(NEURISA), Member (Jan. 2017 – Present)  
Association of American Geographers, Member (Oct. 2016 – Present)

## HONORS

Graduated from Westfield State University with the distinction of Commonwealth  
Honors Scholar (member of WSU's Honors Program)

Gamma Theta Upsilon Honor Society (Apr. 2017)  
Pi Mu Epsilon Honor Society (Apr. 2016)  
Phi Kappa Phi Honor Society (Mar. 2015)  
Lambda Sigma Honor Society (Nov. 2014)

### **GRANTS, SCHOLARSHIPS, AND FELLOWSHIPS**

- Awarded full tuition remission and stipend via a graduate teaching assistantship from the University of Texas at Dallas, academic years 2016–2018.
- Awarded a \$2500 fellowship from the Pioneer Natural Resources Corporation, 08/2016.
- Awarded a \$500 grant from the Westfield State University’s S.M.A.R.T.S program for student travel to the 2016 Joint Mathematics Meetings in Seattle, WA, 12/2015.
- Awarded a \$200 grant from the Mathematical Association of America for student travel to present a poster at the 2016 Joint Mathematics Meetings in Seattle, WA, 11/2015.
- Awarded a \$3000 grant from Westfield State University for my research project under the Research Experience for Undergraduates, 2015.
- Awarded a \$500 grant from Westfield State University for a summer mathematics tutor, 2015.
- Awarded a \$300 grant from Westfield State University’s S.M.A.R.T.S to support travel and attendance of the 2015 Joint Mathematics Meetings in San Antonio, TX, 01/2015.
- Awarded the John and Abigail Adams Scholarship, a tuition waiver by the Commonwealth of Massachusetts, 2012–2016.
- Awarded a \$700 grant under the “Faolin M. Pierce Scholarship”, 06/2012.
- Awarded a \$1000 grant under the “Agawam Chapter UNICO Scholarship”, 06/2012

### **TALKS AND PRESENTATIONS**

- American Association of Geographers Annual Meeting; New Orleans, LA, 03/18; Speaker: *Empirical Estimations for the Jacobian Term of an Auto-Normal Model.*
- North American Regional Science Council Annual Meeting; Vancouver, BC, 11/17; Speaker: *Empirical Surface Partitionings,  $K_4$  Sub-Graphs, and the Inertia of Spatial Weights Matrices.*
- American Association of Geographers Annual Meeting; Boston, MA, 03/17; Speaker: *Uncertainty Propagated Through the Jacobian Term of an Auto-Normal Model: Establishing a Conceptual Basis.*
- GIS Day 2016; The University of Texas at Dallas, Richardson, TX 11/16; Graduate Student Poster Contributor: *Batch DEM Conversion and Re-Projection: Automation using Python.*

- GIS Day 2016; The University of Texas at Dallas, Richardson, TX, 11/16; Graduate Student Poster Contributor: *Estimating the overall ablation rate of the Mt. Rainier glacier system: an initial analysis.*
- Celebration of Undergraduate Research and Creative Work Symposium; Westfield State University, Westfield, MA, 05/16; Student Poster Contributor: *Inter-cardinal Adjacencies: A New Landscape Metric.*
- Celebration of Undergraduate Research and Creative Work Symposium; Westfield State University, Westfield, MA, 05/16; Student Poster Contributor: *Scripting the Intercardinal Metric Using Python.*
- Northeast Arc Users Group Spring Spatial Technologies Conference; Amherst, MA, 05/16; Speaker: *Scripting the Intercardinal Metric Using Python.*
- American Mathematical Society and Mathematical Association of America Joint Meetings; Seattle, WA, 01/16; Undergraduate Student Poster Contributor: *Intercardinal Adjacencies: A New Landscape Metric.*
- Senior Honors Presentation; Westfield, MA, 12/15; Speaker: *Intercardinal Adjacencies: A New Landscape Metric.*
- Research Experience for Undergraduates Summer Talk; Westfield, MA, 07/15; Speaker: *Intercardinal Adjacencies: A New Landscape Metric.*
- Hudson River Undergraduate Mathematics Conference; Schenectady, NY, 04/15; Speaker: *Intercardinal Adjacencies: A New Landscape Metric.*

## **PROFESSIONAL CONFERENCES**

*The professional conferences noted below are those of which I attended, but did not participate in a formal presentation (see above).*

- Southwest Division of the Association of American Geographers Annual Meeting; The University of North Texas, Denton, TX, 10/16.
- American Mathematical Society and Mathematical Association of America Joint Meetings; San Antonio, TX, 1/16.

## **COLLEGIATE ACTIVITIES**

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|--|-------------|
| • Secretary, UTD GIS Student Organization (GISSO)            | 2017        |
| • Member of the UTD GIS Student Organization (GISSO)         | 2016 – 2018 |
| • WSU Peer Tutor, mathematics, GIS, & earth systems sciences | 2015 – 2016 |
| • Member of the WSU Mathematics Club                         | 2012 – 2016 |

## **AREAS OF PROFESSIONAL INTEREST**

### **Mathematics**

Applied mathematics, operations research and modeling, numerical analysis, optimization, graph theory, combinatorics, linear algebra

### **Geospatial Information Sciences**

Spatial analysis, spatial statistics, mathematical modeling, GIS data analysis, computer programming for GIS, network analysis, web and mobile GIS

### **Earth Systems Science**

Landscape ecology, physical geology, oceanography

## **AREAS OF PERSONAL INTEREST**

Running, hiking, woodworking, cooking, jazz

## **OTHER EMPLOYMENT**

### **Tavern Restaurant, Westfield, MA**

*Line Cook*

June 2010 – August 2016

- Prepared food and kitchen prior to and throughout the shift.
- Cooked and served food during operating hours.

### **The Ranch Golf Club, Southwick, MA**

*Grounds Keeper*

May 2011 – August 2011

- Performed general golf course maintenance including lawn care and operated machinery.