GREG A. DAMICO

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**Summary of Qualifications**

I am an applied mathematician with three years’ experience in coding, mining big data, and using computational techniques to find answers to analytically intractable problems. I also have fifteen years’ experience in academic research, lecturing, communicating complex ideas to audiences of all sizes and demographic makeups, and evaluating professional writing at all levels. I am highly adaptable and am known for excellent analytical and quantitative reasoning and outstanding communication skills.

* Wide-ranging coding experience in C, Python, and UNIX; self-taught in C++ and Java
* Extensive experience in Statistical Modeling with R and MATLAB
* High proficiency with MS Office, SQL, and LaTeX; competence with Hadoop, HTML, CSS, and JavaScript
* Excellent ability to communicate complex technical concepts to diverse audiences of all sizes
* Highly effective collaboration and time management strategies for diverse team projects, including committee work, seminar leadership, curriculum design, and social media projects
* Research and publishing experience in both short-term projects and manuscript-length projects
* Cultural competence: fluency in German; working knowledge of French and Spanish

**Professional Training and Experience**

Graduate Work in Applied Mathematics

University of Washington September 2014-March 2017

Focus on high-performance computing, matrix theory, numerical methods for ODEs and PDEs, dynamic systems, vector calculus. Supplemental work in financial analysis, investment science and variational calculus.

High-Performance Computing

* Coded in C, Python, UNIX
* Learned Git, Matplotlib, CoCalc (SageMathCloud)
* Enhanced and streamlined code by means of Open Multi-Processing (multiple threads) and Message-Passing Interface (sending and receiving) software packages.
* Developed understanding of basic computer design, including multiple threads and caches, heap/stack theory and optimization problems.

Numerical Analysis and Approximation Methods for Differential Equations

* Developed skills in multiple programming and other platforms, including R and MATLAB.
* Mastered techniques for addressing real-world challenges and case studies in data engineering, including matrix factorization and orthogonalization, finite differencing, shooting and spectral methods.

Financial Analysis

* Learned the fundamentals of investment science and asset management.
* Worked with Means and Volatilities, Skewness and Kurtosis of portfolios.
* Utilized various pricing models including the CAPM and the Fama-French.

Calculus and Dynamic Systems

* Analyzed phase portraits and explored stability and bifurcation theory.
* Worked with Maclaurin and Laurent Series and the Calculus of Residues.

MOOCs August 2015-May 2017

* Business Metrics for Data-Driven Companies and Mastering Data Analysis in Excel, 1st and 2nd courses of Excel to MySQL: Analytic Techniques for Business: Coursera / Duke University
* Foundations of Data Science, Data Visualization 1&2 with *ggplot2*, Intro and Intermediate R: DataCamp and Springboard
* R Programming Certificate with Distinction: Coursera / Johns Hopkins

Instructor, Lecturer, Committee Member

Bellevue College, Solano College, UC Davis September 2011-

* Synthesized and presented complex and technical ideas to audiences ranging from novices to experts.
* Led faculty teams in organizing courses, seminars, and other group-focused projects.
* Collaborated with teams in the construction of classroom initiatives and goals; developed and implemented instructional testing protocols.
* Developed multiple courses that earned college Quality Online certification.
* Guided and assessed thousands of student-produced works, presentations, and collaborative projects.

**Relevant Long-Term Projects**

“Some Revealing Applications of the Legendre Transform”, Conference Presentation, Winter 2017.

* Researched role of Legendre Transformations in variational calculus.
* Condensed academic writing into pedagogical presentation.
* Augmented the work of recent authors.
* Addressed a professional audience with my findings.

“Finding a Fuel-Efficient Car”, Data Science Project, Fall 2016.

* Discovered, isolated and adapted a large dataset.
* Mined the matrix and wrangled the data by running statistical diagnoses (Chi-squared, R values, etc.) on the data.
* Discovered patterns in the data that enabled predictions about the MPG-performance of various car manufacturers.
* Developed effective strategies for how to choose fuel-efficient cars wisely.
* Drafted a report with my recommendations and prepared a presentation for a professional audience.

**Publications**

Review of *How to Get Philosophy Students Talking: An Instructor’s Toolkit*, in *Teaching Philosophy* (2016).

“Sameness in Being Is Sameness in Species: Or: Was an Aristotelian Philosophy of Identity Ever Credible?”,

in the *Journal of Value Inquiry* (2014).

**Professional Organizations**

* SIAM: Society for Industrial and Applied Mathematics
* MAA: Mathematical Association of America

**Education**

M.S., Applied Mathematics, University of Washington, March 2017

Ph.D., Philosophy, UC Davis, September 2011

M.A., Greek, University of Michigan, May 2007; M.A., Philosophy, UC Davis, March 2006

B.A., Physics; B.A., Philosophy and German, The Ohio State University, March 2001