

# Richard D. Myers, Ph.D.

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## Experience

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<b>Principal Software Development Scientist</b> , DNV – Katy, TX (Remote)	Apr 2022 – Apr 2025
<ul style="list-style-type: none"><li>Worked primarily on bug fixes and enhancements for SPS (Stoner Pipeline Simulator)</li><li>Focused on technical leadership, innovation, and long-term project vision within DNV's global engineering framework</li></ul>	
<b>Senior Software Development Scientist</b> , DNV – Katy, TX (Hybrid)	July 2012 – Apr 2022
<ul style="list-style-type: none"><li>Supported software development for state finding using adjoint methods and transient optimization for gas pipeline networks in Synergi Gas 4</li><li>Merged software updates and tested code changes prior to internal release</li><li>Assisted Henry Rachford with development systems</li><li>Automated testing for Quickstart and GTO to support Richard Carter</li><li>Implemented step doubling in SPS (Stoner Pipeline Simulator), achieving quadratic convergence of time solutions</li><li>Expanded development work across SPS in addition to Synergi Gas 4</li><li>Note: DNV is the corporate successor to GL Noble Denton, GL Industrial Services, and Advantica</li></ul>	
<b>Senior Software Development Scientist</b> , GL Noble Denton – Houston, TX (Hybrid)	Jan 2010 – July 2012
<ul style="list-style-type: none"><li>Supported software development for state finding using adjoint methods and transient optimization for gas pipeline networks in Synergi Gas 4</li><li>Merged software updates and tested code changes prior to internal release</li><li>Worked through transitional phase following merger with GL Industrial Services and Advantica</li><li>Note: GL Noble Denton succeeded GL Industrial Services and Advantica</li></ul>	
<b>Software Development Scientist</b> , GL Industrial Services – Houston, TX (Hybrid)	Sept 2007 – Jan 2010
<ul style="list-style-type: none"><li>Supported software development for state finding using adjoint methods and transient optimization for gas pipeline networks in Synergi Gas 4</li><li>Merged software updates and tested code changes prior to internal release</li><li>Note: GL Industrial Services succeeded Advantica</li></ul>	
<b>Software Development Scientist</b> , Advantica – Houston, TX	Aug 2007 – Sept 2007
<ul style="list-style-type: none"><li>Short tenure prior to merger; contributed to ongoing development projects for safety and modeling tools</li><li>Worked on compressor station scheduling in Synergi Gas 4</li></ul>	
<b>Visiting Assistant Professor</b> , University of St. Thomas	Aug 2005 – Aug 2007
<ul style="list-style-type: none"><li>Taught undergraduate mathematics courses in calculus, differential equations, numerical analysis, linear algebra, probability, and real analysis</li><li>Directed junior and senior undergraduate research seminars and independent studies</li></ul>	
<b>Director of Computing Facilities, Mathematics Department</b> , University of St. Thomas	Nov 2006 – present
<ul style="list-style-type: none"><li>Managed departmental computing facilities and instructional technology</li></ul>	
<b>Teaching Assistant</b> , University of Houston	Aug 2003 – Aug 2005

**Research Assistant**, University of Houston

June 2000 – May 2003

## **Education**

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**University of Houston**, Ph.D. in Mathematics

2005

- Advisor: Jiwen He

- Dissertation: Numerically Consistent Approximations for Optimal Control Problems Applied to Stiff Chemical Systems

**University of Houston**, M.S. in Applied Mathematics

2002

**University of Houston**, B.S. in Mathematics (Magna cum Laude)

2000

## **Publications**

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**Step Doubling for Pipeline Flow**

May 2019

Todd F. Dupont, Richard Myers

[onepetro.org/PSIGAM/proceedings-abstract/PSIG19/PSIG19/2121](http://onepetro.org/PSIGAM/proceedings-abstract/PSIG19/PSIG19/2121) (Proceedings of the PSIG Annual Meeting)

## **Teaching**

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### **Courses Taught (University of St. Thomas)**

- Fall 2005: MATH 1432 Calculus II; MATH 3339 Numerical Analysis; MATH 2343 Differential Equations; MATH 3181 Junior Research Seminar
- Spring 2006: MATH 1432 Calculus II; MATH 3334 Linear Algebra; MATH 3181 Junior Research Seminar; MATH 4392 Independent Study
- Summer 2006: MATH 1431 Calculus I; MATH 4392 Independent Study
- Fall 2006: MATH 1432 Calculus II; MATH 3335 Probability; MATH 2343 Differential Equations; MATH 4331 Real Analysis; MATH 3181 Junior Research Seminar; MATH 4181 Senior Research Seminar; MATH 4392 Independent Study
- Spring 2007: MATH 2431 Calculus III; MATH 3339 Numerical Analysis; MATH 2338 Introduction to Technical Computing; MATH 3181 Junior Research Seminar; MATH 4181 Senior Research Seminar

### **Courses Developed (University of St. Thomas)**

- MATH 3181 / MATH 4181 Junior/Senior Research Seminar
- MATH 2338 Introduction to Technical Computing

## **Research**

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### **Undergraduate Research Projects Directed — Fall 2006**

- Michael Deeb — The Mathematics Behind Basketball
- Ashley Gibbs — Mathematics of Stringed Instruments
- David Gutierrez — Mathematics in Predicting Human Strength Performance
- Kulvir Kaur — Teaching Mathematics in Grades 8–12
- Hai Le — Mathematics of Digital Photography
- Michael Nguyen — P vs. NP
- Claudia Oramas — Stabilization of Structures
- Linh Tran — Mathematics and Pool
- Mary Tapado — The Golden Mean

**Undergraduate Research Projects Directed — Spring 2006**

- Giselle Ramos-Bryan — Pascal's Triangle
- Moses Khan — Relevance of Mathematics in Our Daily Lives
- Ashley Gibbs — Bezier Curves
- Michael Nguyen — Cryptology
- Janie Garcia — Tomography and Medical Imaging
- Randhi Panapitiya — Mathematics of Traffic Flow
- Robin Stone — Chaos, Fractals, and Perlin Noise
- Mary Tapado — Wallpaper Patterns

**Undergraduate Research Projects Directed — Fall 2005**

- Janie Garcia — Galileo Galilei
- Moses Khan — Pythagoras
- Dominic Novak — Algorithmic Composition
- Giselle Ramos-Bryan — Mathematics in Art
- Robin Stone — Teaching Mathematics

**University of St. Thomas Research Symposium**

- 2006 — Ashley Gibbs: Bezier Curves in Application
- 2006 — Christopher LaVallee: Mathematics in the Design of a Longbow

**Professional References**

Available upon request.

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