## Steven T. Morse

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#### **EDUCATION**

Master of Science, Operations Research (expected: June 2017) 2015 - Present Massachusetts Institute of Technology, Cambridge, MA. GPA: 5.0/5.0

 $Bachelor\ of\ Science,\ Mathematics$ 

2004 - 2008

United States Military Academy, West Point, NY. GPA: 3.78/4.0

#### **EXPERIENCE**

Research Fellow

August 2015 - Present

MIT and Draper Laboratory, Cambridge, MA

- Research fellow co-advised at MIT and Draper Laboratory, while completing requirements for a Master's in Operations Research with the MIT OR Center.
- Research in complex systems, specifically the spread of influence and information through a social network, with a focus in large-scale data. Coursework included machine learning, optimization, analytics, and networks.

Assistant Secretary of the General Staff 4th Infantry Division, Fort Carson, CO January 2015 - June 2015

- Assisted the Division Secretary of the General Staff (SGS) in coordinating operations and staff liaison for the Division Command Group consisting of the Div. Commanding General (2-star), his deputy commanders, and Chief of Staff.
- Performed as the SGS for over two months (a lieutenant colonel billet), including during a Division change of command. Also performed as the interim aide-decamp for the Deputy Commanding General during this period.

Company Commander

October 2013 - January 2015

Bravo Company, 2-8 Infantry Regiment (2ABCT), 4th Infantry Division Fort Carson, CO and Camp Buehring, Kuwait

- Supervised a 120-man infantry company, including training, equipment maintenance (\$72 million worth), and human resource management.
- Deployed to Operation Spartan Shield, Kuwait, October 2013 July 2014. Hand-selected by the Brigade Commander to command U.S. Army Central Command's primary crisis response force for the Middle East.

Brigade Assistant Operations Officer November 2012 - September 2013 2nd (Armored) Brigade Combat Team, 4th Infantry Division, Fort Carson, CO

- Assisted the operations officer of a 3,500-man brigade combat team in planning, resourcing, and executing training to prepare for combat deployment.
- Lead maneuver planner during the brigade's month-long certifying training event at the National Training Center (Ft. Irwin, CA).

 $\begin{tabular}{ll} Company \ Executive \ Officer & August \ 2011 - February \ 2012 \\ Headquarters \ and \ Headquarters \ Company, \ 2-502 \ Infantry \ Regiment \ (2BCT), \ 101st \\ \end{tabular}$ 

Airborne Division, Fort Campbell, KY
Managed day-to-day operations of a 214-man company including budgeting, resource allocation for training, and equipment maintenance (\$45 million worth).

Second-in-command, serving as the commander in his absence.

Rifle Platoon Leader

July 2009 - July 2011

Attack Company, 2-502 Infantry Regiment, 101st Airborne Division

Fort Campbell, KY and Kandahar, Afghanistan

• Supervised a 41-man infantry platoon including leading daily tasks ranging from combat training to family welfare.

#### **PAPERS**

Persistent Cascades: Measuring Patterns of Communication in Social Networks. S. Morse, M. C. González, N. Markuzon. IEEE Conference on Big Data, Washington D.C. (accepted)

2016

Trace Diagrams, Signed Graph Colorings, and Matrix Minors. S. Morse, E. Peterson. Involve, vol. 3.

A Diagrammatic Approach to Linear Algebra: Results and Trivial Proofs. (Undergraduate thesis) S. Morse. U.S. Military Academy. 2008

### **TALKS**

Persistent Cascades: Detecting Fundamental Patterns of Communication Conference on Complex Systems (CCS), Self-Organizing Patterns Satellite, Amsterdam, the Netherlands.

A Diagrammatic Approach to Linear Algebra: Some Results and Trivial Proofs. 3rd Annual Spuyten-Duyvil Undergraduate Mathematics Conference. 2008

### **TEACHING**

USMA Mathematics Dep't Instructor, 2017-20 (upcoming) Software Tools for Optimization and Analytics (15.S60), Winter seminar. The Analytics Edge (15.071), online, edX.

### **SKILLS**

Programming: Python, R, Java, C, C++, JavaScript/jQuery, HTML/CSS, LaTeX. Software: MATLAB, Mathematica, Git. Certifications: Top Secret clearance (interim). Other: Piano, Guitar, Voice.

# MILITARY SCHOOLS & AWARDS

Schools: U.S. Army Ranger School, Airborne School, Sabalauski Air Assault School, Basic Mountaineering Course, Combatives Level I and II, Maneuver Captains Career Course, Bradley (Mechanized) Leader Course.

Awards (selected): Ranger Tab, Expert Infantryman Badge, Combat Infantryman Badge, Parachutist Badge, Air Assault Badge, Bronze Star, Meritorious Service Medal (x2), Military Outstanding Volunteer Service Medal, Presidential Unit Citation, Valorous Unit Citation, Meritorious Unit Citation.

## VOLUNTEER SERVICE

ORC IAP Seminar, Coordinator INFORMS, MIT Chapter, Officer Journey Church, Lead Guitar and Setup Camp Buehring Chapel, Lead Guitar January 2016 - December 2016 November 2015 - Present November 2013 - May 2014