

# MONTÉ B. HOOVER

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## EDUCATION

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### University of Maryland, College Park, MD

M.S. Computer Science

2021 – 2023 (expected graduation)

### United States Military Academy, West Point, NY

B.S. Computer Science with Honors, 3.95 GPA (7<sup>th</sup> out of 1244 in class)

2006 – 2010

## PUBLICATIONS

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**“Machine Learning at Microsoft with ML.Net”**, Zeeshan Ahmed, Saeed Amizadeh, Mikhail Bilenko, Rogan Carr, Wei-Sheng Chin, Yael Dekel, Xavier Dupre, Vadim Eksarevskiy, Senja Filipi, Tom Finley, Abhishek Goswami, Monte Hoover, Scott Inglis, Matteo Interlandi, Najeeb Kazmi, Gleb Krivosheev, Pete Luferenko, Ivan Matantsev, Sergiy Matushevych, Shahab Moradi, Gani Nazirov, Justin Ormont, Gal Oshri, Artidoro Pagnoni, Jignesh Parmar, Prabhat Roy, Mohammad Zeeshan Siddiqui, Markus Weimer, Shauheen Zahirazami, Yiwen Zhu. *Proceedings of the 25th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining (KDD 2019)*. 2019

**“High Performance Machine Learning in Python with NimbusML”**, Gani Nazirov, Yiwen Zhu, Monte Hoover. *Microsoft Machine Learning, AI and Data Science Conference (MLADS 2018)*. 2018

**“Disruptive Technology: Distributed High-Performance Computing”**, Monte Hoover. *Proceedings of The National Conference on Undergraduate Research (NCUR 2010)*. 2010

## WORK EXPERIENCE

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### Microsoft Corporation

Redmond, WA & Amman, Jordan

2016 – 2021

#### SUPPORT ENGINEERING MANAGER, Microsoft Azure

Apr 2019 – Feb 2021

- Led org of 43 engineers across 4 countries to provide support and advisory services for developers using Azure Kubernetes Service.
- Tripled diversity hiring rate for Kubernetes engineering teams in Europe, the Middle East, and Africa.

#### MACHINE LEARNING ENGINEER, Microsoft Research

Feb 2018 – Apr 2019

- Developed cross-platform functionality for NimbusML, a library of python extensions for ML.NET allowing for faster iteration of machine learning experiments.
- Presented at 2018's Machine Learning, AI and Data Science conference (MLADS), introducing NimbusML and demonstrating best practices for using transfer learning in image classification.

#### SOFTWARE ENGINEER, Microsoft Xbox

Jun 2016 – Feb 2018

- Optimized emulator performance with extremely low tolerances for variance: emulator has 16.6 ms to successfully reproduce original physics calculations and rendering calls before emitting unacceptable visual latency.
- Reverse engineered binaries in order insert new hooks to modern services and determined optimal bit-accuracy for translated floating point instructions.

### United States Army

Bamberg, Germany & Wardak, Afghanistan

2010 – 2015

#### EXECUTIVE OFFICER (Captain, Medical Service Corps)

Apr 2013 – Mar 2015

- Led 10-person executive unit in planning and conducting the acquisition and sale of primary care clinics for Bavaria MEDDAC, the U.S. military's healthcare collective in southern Germany.

**PLATOON LEADER (First Lieutenant, Medical Service Corps)**

May 2010 – Apr 2013

- Led team of 18 paramedics in emergency medicine operations in support of military and humanitarian missions in Germany and Afghanistan; received Bronze Star for service in theater.

## INTERNSHIPS

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**Goldman Sachs**

Apr – May 2015

Developed tool for valuation of binary option trades; resulted in new analysis of over \$100M in transactions.

**National Security Agency**

Jun – Jul 2009

Conducted research for the Information Assurance Directorate.

## AWARDS AND HONORS

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**National Physical Science Consortium Fellowship**

2021

Six-year graduate research fellowship awarded by a consortium of U.S. national laboratories and federal agencies to promote research in the physical sciences.

**Bronze Star Award**

2013

Awarded for service as a Medical Platoon Leader for the 173rd Airborne Brigade in Wardak Province, Afghanistan.

**Ulysses S. Grant Memorial Award**

2010

Awarded to West Point's number one ranked graduate in Computer Science.

**Superintendent's Award for Excellence**

2010

Awarded to the top 5% of the graduating class ranked by combined Academic, Physical, and Military program scores.

**Best-in-Course Awards**

2008 – 2010

Fundamentals of Computer Theory (CS474), Programming Languages (CS478), Design & Analysis of Algorithms (CS385), Digital Computer Logic (EE360), Introduction to Discrete Math (MA372).

## INVITED TALKS

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**Azure Global Bootcamp – Amman, Jordan**

2019

*ML.NET: The Algorithms Behind Azure Cognitive Services*

**Microsoft AI School – Amman, Jordan**

2019

*Introduction to Machine Learning Algorithms*

## RESEARCH INTERESTS

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- 3D Surface Reconstruction
- Spatial Audio
- Explainable Artificial Intelligence

## VOLUNTEER WORK

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- Co-founder of Nicaragua Christmas Project, an initiative to increase school attendance in rural Nicaragua.
- Pro-bono consultant for B12, an EdTech startup based in Amman, Jordan.
- Interviewer and mentor for Microsoft's LEAP and MSSA diversity hiring programs.

## TECHNICAL SKILLS

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Languages: Python, C++, CUDA, x86 Assembly

Machine learning: Pytorch, TensorFlow, Scikit-learn

DevOps: Kubernetes, Terraform, Docker

Performance analysis: WinDbg, IDA disassembler