Alexander Wood, *Ph.D. Candidate in Computer Science*

CONTACT INFORMATION

Alexander Wood
The Graduate Center, CUNY

E-mail: awood [at] gradcenter.cuny.edu
Website: http://awood.ws.gc.cuny.edu/
GitHub: https://github.com/alexanderwood

Mailing address:
Ph.D. Program in Computer Science
The Graduate Center, CUNY
365 Fifth Avenue, Room 4319
New York, NY 10016

RESEARCH INTERESTS

Fully homomorphic encryption, machine learning, computational medicine

WORK & EDUCATION

The Graduate Center, CUNY, New York, New York
- Ph.D Candidate in Computer Science
- 2015-Present
- Advisor Professor Delaram Kahrobaei

University of Michigan, Ann Arbor, Michigan
- Research Scientist at Biomedical and Clinical Informatics Lab (BCIL), MCIRCC, University of Michigan
- 2017-Present

The Graduate Center, CUNY, New York, New York
- Masters of Philosophy in Computer Science
- 2017

The Graduate Center, CUNY, New York, New York
- Graduate Mathematics Coursework
- Passed qualifying exams in abstract algebra and algebraic topology
- 2013-2015

DePaul University, Chicago, Illinois
- M.S. Pure Mathematics, with distinction
- Passed qualifying examinations in algebra and analysis
- 2012-2013, 2015

DePaul University, Chicago, Illinois
- B.A. Pure Mathematics, Summa Cum Laude
- 2008-2012

PROGRAMMING SKILLS

- Languages: C++, Python, Matlab
- Graphics & Typesetting: LaTeX, Beamer, TikZ, gnuplot, yEd
- Databases: PostgreSQL, SQLite
- Other: HTML/XML, GAP

TEACHING

John Jay College of Criminal Justice, Adjunct Lecturer **2015-2017**
- Cryptography and Cryptanalysis 2017

- Calculus II 2016
- College Algebra 2015
- Precalculus 2015

New York University, Adjunct Lecturer **2015-2016**
- Python for Engineering, Opportunity Program 2016
- Precalculus, Opportunity Program 2015-2016
- Calculus, Opportunity Program 2015

New York City College of Technology, Adjunct Lecturer **2016**
- Computer Programming and Problem Solving with Python 2016

DePaul University, Graduate Teaching Assistant **2012-2013**
- Real Analysis I & II, Group Theory

Presentations

Introduction to Blockchains, Invited Talk, QUILTBAG++ **2017**

Generic-Case Complexity in Algorithmic Group Theory, Lecture, Algorithmic Group Theory Graduate Course **2016**

The Generic Case Complexity of Group-Theoretic Problems, Candidacy Exam **2016**

MixCoin: A Method For Anonymous Transactions In BitCoin, Digital Currencies course presentation **2016**

A Survey of Definitions of Generic-Case Complexity, GC Cryptography Seminar **2016**

Weighted Threshold Secret Sharing, Cryptographic Protocols course presentation **2015**

Cramer-Shoup Encryption, GC Cryptography Seminar **2015**

Shor's Algorithm for Factoring in Polynomial Time on a Quantum Machine, GC Cryptography Seminar **2015**

Generic-Case Complexity, GC Cryptography Seminar **2015**

Papers

The Generic-Case Complexity of Group-Theoretic Problems **2016**
- Survey for candidacy exam

Behavior of Distance Metrics in High Dimensional Spaces **2015**
- Machine Learning course project

Quantization and Statistical Analysis of Data Using a Bayes Decision Rule **2015**
- Machine Learning course project
- Co-authored with Matteo Campanelli and Kelsey Horan

Weighted Threshold Secret Sharing **2015**
- Cryptographic Protocols course project
- Co-authored with Nikolas Melissaris

Leadership	*Doctoral Student Council, Computer Science Rep.*	**2016-2017**
	• Student Technology Fee Committee	2016-2017
	Graduate Council, Computer Science Student Rep.	**2016-2017**
	Computer Science Students Association, Chairperson	**2016-2017**
	• Executive Committee, Curriculum Committee, and Elections Commitee	2016-2017
	GC Crypto-Math Seminar, Co-Organizer	**2016-2017**
	Doctoral Student Council, Mathematics Representative	**2015**
	American Mathematical Society, Member	**2010, 2013-2015**
Fellowships	*CUNY Research Foundation Research Assistantship*	**2017**
	CUNY Computer Science Fellowship	**2016**
	University Fellowship, Hunter College	**2016**
	CUNY Research Foundation Research Assistantship	**2016**
	CUNY Graduate Assistantship B, Computer Science	**2015-2016**
	CUNY Math Fellowship	**2013-2015**
	CUNY Graduate Assistantship B, Mathematics	**2013-2015**
	DePaul Graduate Mathematics Fellowship	**2012-2013**
Other Work	*Wohl Communication Services*, Reader, Recorder, and Proctor for Graduate Examinations (GRE, MCAT, & FINRA)	**2013-2016**
	The Graduate Center Information Technology, IT Aide	**2013-2014**
	DePaul Information Services, IS Student Assistant	**2009-2011**