

GRAHAM ENOS

Summary

More than 10 years of mathematical research, computer programming, and education experience; Extensive experience in data science, modeling, visualization and analysis; Previously held Top Secret/SCI clearance; passed special background investigation, full scope polygraph.

AREAS OF EXPERTISE

- Data Science, Statistical Data Mining and Modeling, Software Development
- Scala, Python (including “data stack,” e.g. NumPy and Pandas), C, C++ (especially modern C++11, etc.), R, Sage; Conversant in Clojure, Common Lisp, Haskell, JavaScript, Java, Scheme, SQL
- Elliptic Curve Public Key Cryptography, Computational and Algorithmic Abstract Algebra and Group Theory

Education

2009–2013

PH.D. IN APPLIED MATHEMATICS, *University of North Carolina at Charlotte*, Charlotte, NC

Wrote and defended dissertation “Binary Edwards Curves and Elliptic Curve Cryptography” while working full time as an Applied Research Mathematician at the U.S. Department of Defense; Dr. Yuliang Zheng & Dr. Gabor Hetyei, advisors

2007

B.A. IN MATHEMATICS & PHILOSOPHY, *Bates College*, Lewiston, ME

3.93 GPA; graduated Summa Cum Laude, Phi Beta Kappa, & Sigma Xi

Relevant Experience

2016–Present

Data Scientist, QUANTIFIND, INC., Washington, DC

- Statistics and machine learning to help companies uncover signals hidden noisy data
- Sifting through data with Scala, Python, R, etc

2012–2016

Applied Research Mathematician, DEPARTMENT OF DEFENSE, Fort Meade, MD

- Received cash award in 2013 for saving an immense amount of time, effort, and money by advocating for continuous integration and developing an internal tool that drastically shortened development feedback loop for a large scale, multi-developer, mission-critical high performance computing project
- Researched state of the art in automatic language-independent text summarization, then developed, documented, and tested a new text summarization algorithm
- Examined, extracted, cleaned, explored, visualized, and modeled data from multiple, disparate sources of varying consistency and quality using a variety of statistical techniques and analytical tools
- Optimized development cycle of plugins for a large internal software tool
- Selected to be a Teaching Assistant for internal Statical Data Analysis and Data Mining course and was the only TA explicitly praised in student evaluation forms
- Trained in data mining, machine learning, cryptanalysis, computer security, information assurance, computer network exploitation, software reverse engineering
- Authored internal technical/mathematical papers and software tools to advance the state of the art in language-independent text summarization, anomalous object detection in large data sets, and public key cryptography

2012

Analytical Consultant, BOOZ ALLEN HAMILTON, McLean, VA

- Studied application of Natural Language Processing to in-house phishing email training
- Conducted research and analysis of personnel hierarchy with Python, GraphViz, Excel, and Visual Basic
- Extended a database application in Microsoft Access

Publications

- Graham Enos. *Complete and unified group laws are not enough for elliptic curve cryptography*. Cryptology ePrint Archive, Report 2013/015, 2013.
- Graham Enos and Yuliang Zheng. *An id-based signcryption scheme with compartmented secret sharing for unsigncryption*. Information Processing Letters, 115(2):128 – 133, 2015.