





Gian Pietro Farina

Senior Software Engineer Snowflake Inc.

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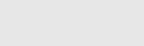
Languages

 Italian 
 English 

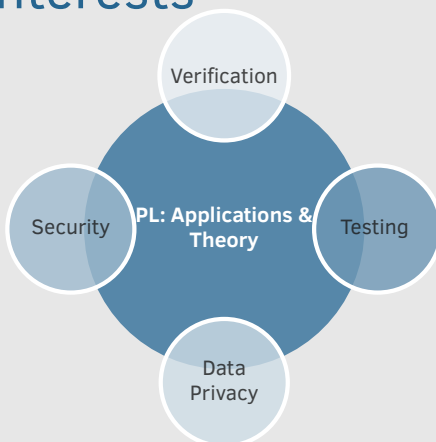
About Me

I am passionate about software and systems, and I thrive in environments where rigorous thinking and innovation intersect. I take a foundation-first approach: prioritizing deep understanding and thoughtful design before moving to implementation. I enjoy tackling complex problems and contributing to research-driven projects. I hold a PhD in Computer Science with a focus on formal methods for verification of relational properties such as differential privacy. In my free time I enjoy playing guitar, chess and studying philosophy.

Soft Skills

 Communication 
 Teamwork 
 Problem Solving 
 Time Management 
 Helpfulness and Endurance 











Interests



Working Experience

02/2023-	Senior Software Engineer	Snowflake Inc.
Integration of a differential privacy engine into Snowflake's core data platform, enabling built-in, privacy-preserving analytics for customers. Worked across a Haskell-based backend and Java infrastructure, using Bazel and Git in a large-scale, production-grade environment.		
01/2020-02/2023	Software Engineer	LeapYear Technologies Inc.
Developed a differential privacy-preserving engine in Haskell. Also built a Python-based system to compute disclosure risk for observations based on historical time series data. Experience with pytest, scipy, tensorflow.		
05/2019-08/2019	Long Term Visitor	Harvard University
Developed in oCaml of a relational symbolic execution engine for R programs.		
01/2019-05/2019	Long Term Visitor	Simons Institute - UC Berkeley
2015-2018	Teaching Assistant	SUNY University at Buffalo, NY
03/2014-12/2014	Penetration Tester	Accenture, Prague
Experience with OWASP methodology, ESXi, vSphere, Kali, Burp-Suite, NESSUS, mimikatz, Wireshark		
10/2013-02/2014	Information Security Analyst	LUTECH, Milano
Log Analysis with LogStash, Elasticsearch, Kibana, SNORT, statistical Analysis for Behavioural Anomaly Detection		
10/2012-10/2013	Cryptography Researcher	ETH, Zurich
01/2012-08/2012	Cryptanalysis Researcher	Aalto University, Helsinki

Programming Languages and Verification Tools

✓ Java 	✓ Python 
✓ Haskell 	✓ NuSMV Model Checker 
✓ oCaml 	✓ Java Path Finder 
✓ C 	✓ TLA+ 
✓ R 	✓ Coq 

Education

2015-2020	Doctorate in Computer Science SUNY - University at Buffalo, NY Thesis: Coupled Relational Symbolic Execution for Differential Privacy
2010-2012	Computer Science, Master Degree (110/110 cum Laude) Università di Milano Thesis: Distinguishing Distributions Using One-Bit Linear Trails on PRESENT Cipher
2007-2010	Computer Science, Bachelor Degree (110/110 cum Laude) Alma Mater Università di Bologna Thesis: Automatic Proofs of Classical Results in Computational Cryptography (Italian)

Publications

Coupled Relational Symbolic Execution for Differential Privacy, ESOP 2021, Relational Symbolic Execution, PPDP 2019, Differentially Private Bayesian Programming - CCS 2016, PrivInfer: A framework for differentially private Bayesian Programming - poster at TPDP 2016, Towards differentially private probabilistic programming - poster at NIPS 2014