Eleftherios "Lef" Ioannidis

Info

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Education

Current	PhD, *University of Pennsylvania*, Philadelphia, PA
Research:	*Research in formal security protocols and zero-knowledge proofs.*
	Using type theory and proof-assistants like Coq, as well as push-button
	verification tools like Dafny and Z3 for cryptography verification. Graduation in 2025.
Advisors:	Sebastian Angel, Steve Zdancewic
Jan '19	Master's in Engineering, *CSAIL MIT*, Cambridge, MA
Major:	Computer Science.
Thesis:	*Extracting and optimizing low-level bytecode from high-level verified Coq.*
Advisor:	Frans Kaashoek, Nickolai Zeldovich, Adam Chlipala, CSAIL
Jun '15	Bachelor's in Computer Science, *MIT*, Cambridge, MA
Major:	Electrical Engineering and Computer Science
Thesis:	*Parallel optimizations for the Halide DSL language.*
Advisor:	Prof. Saman Amarasinghe, CSAIL

Work Experience

Mar '19 - Sep '20	Investment Engineer at Bridgewater Associates, Westport, CT
	Developed trading algorithms, risk-controls, designed and implemented domain-specific programming languages for financial data science embedded in Scala.
May '16 - Oct '17	Software Architect at UnifyID, San Francisco, CA
	Designed and implemented the back-end for implicit authentication, including end-to-end encryption protocols, load-balancing, analytics, as well as distributed machine-learning infrastructure.
Sep '15 - May '16	Security Engineer at Apple, Cupertino, CA
	FairPlay and DRM group
	Application Security, worked with the LLVM Compiler in reverse engineering mitigation.

Conference Talks

Apr 2019	**Speaker**, MCQC: Extracting and optimizing formally verified code, NASA Formal Methods Symposium (NFM 2019), Houston, TX.
Apr 2017	**Speaker**, Data aware Nginx for Machine Learning, Nginxconf 2017, Portland, OR.
Apr 2017	**Speaker**, Scalable ML microservices on GPUs, Dockercon 2017, Austin, TX.
Feb 2017	**Speaker**, Secure, real-time data collection on mobile, MadCon 2017, Austin, TX.