Dmytro Bogatov

https://dbogatov.org
dmytro@dbogatov.org | 857.777.8350 | linkedin.com/in/dmytrobogatov

OBJECTIVE

Looking for a research internship in the area of Database Security. Interested in Secure Range Query protocols, ORE / OPE schemes, ORAM.

EDUCATION

BOSTON UNIVERSITY

PhD in Computer Science
Specialization in Data Science and Cyber Security
Expected May 2023 | Boston, MA
Chair's Fellowship

WPI

BS in Computer Science
Minor in Economics
Awarded Feb 2017 | Worcester, MA
Dean's List (All Semesters)
Graduation with High Distinction
GPA: 3.97 / 4.00

COURSEWORK

GRADUATE

Cryptography
Cryptography directed study
Advanced Algorithms
Advanced Database Systems
Advanced Operating Systems
Distributed Systems
Compiler Design
Optimization Methods

SKILLS

PROGRAMMING

Over 50,000 lines:
C#

Over 10,000 lines:
Swift • C/C++ • Java • TypeScript / JS
Python • HTML • SQL • LaTeX

Intermediate level
Go • Bash • Scheme / ATS • CSS
PHP • Pascal • x86 assembly

DEVOPS

Ubuntu • Docker • Kubernetes
CI / CD • Infrastructure automation
NGINX • Git • Load balancing

RESEARCH

EVALUATION OF SECURE RANGE QUERY PROTOCOLS

| Accepted, pending revisions, VLDB 2019
March 2018 – February 2018 | Boston, MA

- A Comparative Evaluation of Order-Revealing Encryption Schemes and Secure Range-Query Protocols
- Analyzed, implemented and evaluated 5 ORE schemes and 5 protocols
- Recommended for revision at VLDB 2019 ia.cr/2018/953

DIFFERENTIALLY PRIVATE ORAM

| Work in progess with Kalepso startup
Sep 2018 – present | Boston, MA / Montreal, QC

- Developing ORAM satisfying Differential Privacy security guarantees
- Inventing and optimizing to improve the performance
- Current technical report arxiv.org/pdf/1706.01552.pdf

STRONGEST ORDER-REVEALING ENCRYPTION SCHEME

| Work in progess with Georgetown University
May 2018 – present | Boston, MA / Washington, DC

- Improving performance of the provably most secure ORE scheme
- Securing range queries beyond even ideal ORE
- Scheme to improve (not mine) at ASIACRYPT 2018 ia.cr/2018/698

EXPERIENCE AND INDEPENDENT PROJECTS

REDWOOD EDA / STATUS SITE | Web / DevOps Developer

February 2017 – August 2017 | Shrewsbury, MA

- Developed a large-scale micro-services application
- Developed the solution for a company, then open-sourced
- Working application instance status.dbogatov.org

TRADESTATION SECURITIES

| Software Developer / Quantitative Analyst Intern
June 2015 – August 2015 | Plantation, FL

- Led a team of five interns
- Designed and developed a Web Dashboard for clients
- Worked on .NET stack (ASP.NET / MS SQL / Windows Server)

CONFERENCES

- Presented a poster at Northeastern Database Day 2019 at MIT
- Second Workshop on Encryption for Secure Search and other Algorithms
- 23rd Annual Issues in Political Economy Conference
- 2016 IEEE MIT Undergraduate Research Technology Conference

AWARDS

Fall 2017	BU	**Chair's Fellowship**
May 2016	WPI	Certificate **"Outstanding Junior"**
All Semesters	WPI	**Dean's List**
Spring 2014	WPI	**Charles O. Thompson Scholar**