# Dmytro Bogatov

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## OBJECTIVE

Looking for a research internship in the area of Databases and Distributed Systems. Interested in problem-solving, research and software development.

## EDUCATION

### BOSTON UNIVERSITY
PhD in Computer Science
Specialization in Data Science
Expected May 2023 | Boston, MA
Chair's Fellowship

### BOSTON UNIVERSITY
Master in Computer Science
Specialization in Cyber Security
Awarded May 2019 | Boston, MA
GPA: 4.00 / 4.00

### WPI
BS in Computer Science
Minor in Economics
Awarded Feb 2017 | Worcester, MA
Dean's List (All Semesters)
Graduation with High Distinction
GPA: 3.99 / 4.00

## COURSEWORK

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

## SKILLS

### PROGRAMMING
Over 50,000 lines:
C# • C/C++ • LaTeX

Over 10,000 lines:
Go • Python • TypeScript / JS • Java
Swift • HTML • SQL • Bash

Intermediate level
Scheme / ATS • CSS • PHP
Ruby • Pascal • x86 assembly

### DEVOPS
Ubuntu • Docker • Kubernetes
CI / CD • Infrastructure automation
NGINX • Git • GitLab admin

## RESEARCH

### EVALUATION OF SECURE RANGE QUERY PROTOCOLS
| Presented at VLDB 2019, Los Angeles, USA
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
- Accepted at VLDB 2019 ia.cr/2018/953

### DIFFERENTIALLY PRIVATE ORAM
| Work in progess with George Kellaris
Sep 2018 – present | Boston, MA / Montreal, QC
- Developing ORAM-based database backend satisfying Differential Privacy
- Inventing and optimizing to improve the performance
- Current technical report arxiv.org/abs/1706.01552

### ANONYMOUS TRANSACTIONS IN BLOCKCHAINS
| Submitted to ACM CCS 2020
Jun 2019 – present | Boston, MA / Zürich, ZH, Switzerland
- Anonymous Transactions with Revocation and Auditing in Fabric
- Developed production-grade Go cryptographic library
- Submitted to ACM CCS 2020 ia.cr/2019/1097

## INDUSTRY EXPERIENCE

### AMAZON WEB SERVICES, INC.
| Applied Scientist Intern @ Crypto Algorithms team
Oct 2019 – Dec 2019 | Seattle, WA
- Computations over encrypted data, SSE schemes

### IBM RESEARCH — ZÜRICH
| Cloud & Computing Infrastructure Intern
Jul 2019 – Sep 2019 | Zürich, ZH, Switzerland
- Delegatable anonymous credentials in permissioned blockchains
- Paper submitted to ACM CCS 2020 ia.cr/2019/1097

## CONFERENCES

- Presented at VLDB 2019 in Los Angeles, CA
- Presented at Encrypted Search Workshop at Brown
- Attended EUROCRYPT 2019 in Darmstadt, Germany
- Presented at Northeastern Database Day 2019 at MIT
- Attended 2nd Workshop on Encryption for Secure Search and other Algorithms
- Presented at 23rd Annual Issues in Political Economy Conference
- Presented at 2016 IEEE MIT Undergraduate Research Technology Conference

## AWARDS

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|---|---|---|
| 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 |