

# 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](https://ia.cr/2018/953)

### DIFFERENTIALLY PRIVATE ORAM

| WORK IN PROGRESS 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](https://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](https://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](https://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 2<sup>nd</sup> Workshop on Encryption for Secure Search and other Algorithms
- Presented at 23<sup>rd</sup> Annual Issues in Political Economy Conference
- Presented at 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