

Christ Church, St. Aldates Street  
Oxford, OX1 1DP, United Kingdom

**Bogdan Cretu**

Phone: +40751101017  
Email: [cretub6@gmail.com](mailto:cretub6@gmail.com)

## EDUCATION

---

### University of Oxford - MSc in Computer Science

2018-2022 (expected)

Bachelor's degree classification: **1<sup>st</sup> class** honours (equivalent to **4.0 GPA**)

Distinction awarded for practical work in all years

Relevant Coursework: Algorithms and Data Structures, Artificial Intelligence, Compilers, Computer Architecture, Computer Security, Concurrent Programming, Databases, Machine Learning, Networks

## EXPERIENCE

---

### Amazon London – Software Development Engineer Intern

July 2021 – September 2021

- Improved end to end latency for updates in the Amazon catalog in **98%** of use cases by reducing the size of the payload that was being sent between two services by **90%** from an average of **1MB** to **100KB**
- Added **unit tests** and **integration tests** for the new behavior
- Performed **shadow testing** in the production environment, by dialing up the change gradually
- Refactored current code base by removing redundant packages
- Leveraged skills: Git, Java, Docker, Testing, System design

### Dreaming Spires Careers (start-up) – Web developer

August 2019 – December 2019

- Developed a recruiting website with over 1000 users
- Introduced advanced search features for a student database
- Implemented a chat feature between potential employers and students
- Leveraged skills: Git, Full Stack web development, PHP, HTML/CSS, JavaScript, MySQL

## HONORS AND AWARDS

---

### Multiple awards in national and international competitive programming competitions

- Placed constantly in top 10 nationwide (Romania)
- Developed a very strong background in algorithms and data structures
- Obtained advanced problem-solving skills

### ISS Finalists, NASA Zero-Robotics High School Tournament 2015

- Programmed an AI that would control a probe satellite in a simulated space environment
- Lead team of 7 to qualify in the final stage of the competition (top 20 out of 150 teams)

## PROJECTS

---

### Game playing agent

- Implemented a bot for HEX, a game similar to Go, that could defeat strong human opponents
- Achieved over **80%**-win rate against an implementation of a former Computer Olympiad Gold Medalist bot
- Reduced move search time by up to **96%** by developing advanced move pruning strategies
- Leveraged skills: Artificial Intelligence, Automatic Testing, Scala

### BEAST attack simulation

- Implemented BEAST attack for encrypted communication in a mock environment
- Found vulnerability, caused by initialization vector variance with time
- Leveraged skills: Computer Security, Scala

## PROGRAMMING SKILLS

---

**Proficient:** C/C++ **Intermediate:** Java, Scala, Haskell **Familiar with:** Python, JavaScript, PHP, MySQL