# **Bocheng Cui**

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### **SKILLS**

Programming languages: C, C++, Golang, Python, SQL, and Java.

Platforms: Linux, Windows, and macOS.

Others: Algorithm, Data Structure, Distributed Programming, Systems, Networking, etc.

### **PROJECTS**

### Extracting Amplicon Reads from a Whole Shotgun Metagenomic Dataset (Python, SQL, Shell. Teamwork) [Code]

- In this project, we designed and implemented a tool for DNA sequencing, and amplicon reads extracting.
- My part of work:
  - Designing, building, and maintaining the SQLite database.
  - Creating interfaces and scripts to link different parts of the application
  - Designing algorithms for sorting and sequencing.

### Sharded K/V storage system (Go, Python, Shell. This is a solo job)

### [Code]

- In this project, I designed and implemented a fault-tolerant K/V storage system that can serve a big chunk of data with low latency.
  - Simplified and implemented a Raft protocol
  - Built a fault-tolerant Sharded K/V storage system on the modified Raft.

### Distributed MapReduce (Go, Python, Shell. This is a solo job)

### [Code]

• Implemented a Distributed MapReduce model.

### WORK EXPERIENCE

## University of New Hampshire College of Engineering and Physical Sciences Teaching Assistant. Durham, New Hampshire September 2021- Present

- TA for 1 ungraduated-level and 1 graduate-level CS course.
  - Answering students questions, Grading and partly joining the preparation of student assignments

### University of New Hampshire College of Engineering and Physical Sciences Programming Assistance Center Consultant.

University of New Hampshire College of Engineering and Physical Sciences

Durham, New Hampshire September 2021- Present

Programming Consultant for C/C++, Java, Python, and SQL.

Computer Science Grader

Durham, New Hampshire February 2021- June 2021

• Grading 2 computer science courses.

### **University of New Hampshire Dining Service**

Durham, New Hampshire

Food Serve Assistant - Student

August 2020 - December 2020

• Worked in various positions based on University of New Hampshire dining hall needs.

### Intel China, Ltd.

Qingdao, China

Team leader

June 2015 - May 2017

• Lead a team to participate in the Excellent Student Program. Learned how to be a team leader.

### **EDUCATION**

### **University of New Hampshire**

Durham, New Hampshire

Ph.D. in Computer Science

Since Aug 2018

GPA: 3.47/4.00

### Oingdao University of Science & Technology

Qingdao, China September 2014 - June 2018

B.S. in Polymer Material and Engineering