

# Loc Bui

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## Technical Skills

**Languages:** C++ 11, Python, Java, PHP, SQL

**Technologies:** .NET Core, Laravel, Android, Flutter, Docker, Apache Spark

**Operating Systems:** Ubuntu, Windows, macOS

## Experiences

**Teko**, *Software Engineer Intern*

May 2019 - August 2019

- Used **Spark** and **Python** to manage data pipeline processing over 12 billion records from a leading computer equipment retailer
- Built internal data analysis tools: Capture Data Changes facilitating data storing and database queries; automatically generating and sending daily reports via mail
- Optimized the fact table creation process with pure Spark API instead of UDF functions, which improved the performance by nearly 25%

**Monkey Junior**, *Software Engineer Intern*

May 2018 - August 2018

- Used **C++** and **Cocos** framework to develop games in mobile educational applications for children reaching 90,000 downloads

**University of Rochester**, *Data Structures & Algorithms Teaching Assistant*

August 2019 - December 2019

- Hosted weekly lab sessions for 12 students to foster their understanding of data structures and algorithms

## Awards & Honors

**NAC Finalist, 24<sup>th</sup> place (out of 400 university teams):** ACM ICPC North America Championship

C++

**USA Champion, 1<sup>st</sup> place (out of 1000 participants):** Credit Suisse United States of America Coding Challenge

Java

**Consolation Prize, 19<sup>th</sup> place (out of 1000 participants):** Samsung Collegiate Programming Cup (SCPC)

C++

**Silver Medal, 16<sup>th</sup> place (out of 500 participants):** Vietnam Olympiad in Informatics

C++

## Projects

**CSP Online Practice Environment**, *Web services*

August 2019 - Present

- Use **Laravel** and **PHP** to build educational website facilitating computer science program in high school
- Design and develop real-time ranking pages allowing users to view contestants' scores and submissions
- Write script to migrate database from **RethinkDB** to **MySQL**

**Capture Data Changes**, *Distributed System & Web Services*

July 2019 - August 2019

- Used **Spark** and **Python** to keep track of changes in data and schema of tables to facilitate data ingestion
- Developed API to support data ingestion from **PostgreSQL** and **MySQL** data sources
- Improved company's memory space by 10%

**Online Ping Pong Web Game**, *Web Services*

March 2019 - April 2019

- Used **.NET Core** and **C#** to design and develop a real-time online ping pong game
- Developed concurrent engine allowing multiple users to play at the same time
- Used **Docker** to deploy application on **Heroku**

**Werewolf**, *Mobile Application*

October 2019 - September 2019

- Used **Android Studio** and **Java** to design and develop a serverless Werewolf game
- Used **Firebase** as database to store user information and game state
- Used **Agora API** for real-time voice and text chat between users

## Leadership Activities

**Google Developers Student Club**, *Tech Lead*

Nov 2019 - Present

- Organize monthly workshop about Google technologies: **Google Clouds**, **Firebase**, **Flutter**
- Lead a team of 4 to develop technology solutions to local community

**Math & Science Summer Program**, *A.I Mentor*

July 2019 - August 2019

- Prepared and delivered seminars for classrooms of 20 students about **Convolutional Neural Network**
- Served as primary instructor for Deep Learning projects, such as exam cheating detector featured in an article

## Education

**Bachelor of Science in Computer Science**, *University of Rochester*

Anticipated May 2022

**Major GPA:** 4.0/4.0