

# Dung Le

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## Technical Skills

**Languages:** C/C++, Python, Java, PHP, SQL, HTML, JavaScript.

**Technologies:** Git, Spring, Docker, React, Cassandra, NGINX, GraphQL, Redis, Flask, Memcached, RabbitMQ.

**Experiences:** C/C++ concurrency, OpenMP, MPI, Linux kernel.

## Experiences

**Amazon Web Services, Software Engineer Intern**

May 2020 - Aug. 2020

**Got It, Inc, Software Engineer Intern**

May 2019 - Aug. 2019

- Worked on Got It's Excel Chat website and **Flask/SQLAlchemy** backend, serving 1M+ users.
- Designed and led the development of an CI/CD tool using **AWS Python SDK, Github API, Google Oauth 2.0**, and **Python** to improve CI/CD workflows in **AWS CodePipeline** by **1.5x**.
- Created **Memcached** in-memory data storefronts to reduce repetitive resource-intensive API calls.
- Implemented new UI tests with **Selenium** and refactored Pytest unit testing framework.

**ELCOM, Software Engineer Intern**

May 2018 - Aug. 2018

- Created a digital documents router in **Python** to reduce document processing time from **1 day to 2 hours**.
- Implemented routing and waiting of approval timeline for simpler tracking.
- Increased code quality and facilitated code reuse/modification by refactoring Python codebase.

## Awards & Honors

**1<sup>st</sup> place (out of 1745 participants):** *HackerRank: Hack the Interview II, US*

**C++**

**24<sup>th</sup> National (out of 500 university teams):** *ACM - ICPC North America Championships 2020*

**C++**

**6<sup>th</sup> place (out of 20 university teams):** *ACM - ICPC Northeast Regional Contest 2019*

**C++**

**1<sup>st</sup> place (out of 30 participants):** *Google Tech Challenge 2019*

**C++**

## Projects

**Adyio, Web Services**

Mar. 2019 - Mar. 2020

- Designed and implemented backend of a website in **PHP** to find gaming duos based on personal preferences.
- Preserved high-resolution media contents with **Dropbox API**, serving **1500** active accounts.

**Kronos, Web Services**

Nov. 2019 - Now

- Built an website using **Google Search API** to fetch related news/articles that links to stock price changes.
- Implemented **GraphQL API** with **Graphene Python**, and then deployed using **Docker**.
- Used **Cassandra** as articles and stock price snapshots storage for low latency data access with denormalization.

**MPI Profiler, Parallel Computing**

Mar. 2020

- Created a **C++** static library for fine-grain profiling of MPI programs with high-resolution timer.
- Profiled each MPI routine and CPU time of each process with millisecond precision.

**Distributed File System, Distributed Systems**

Dec. 2019 - Mar. 2020

- Built a Distributed File System modeled on Facebook's Haystack paper to store and retrieve images.
- Used **NGINX** as a load balancer to distribute client requests to **Node.js** servers.
- Implemented multiple Haystack Stores with **Cassandra** and Cache servers with **Redis**.

**EZPing, Web Services & Distributed Systems**

Oct. 2019 - Jan. 2020

- Used **Java, Spring**, and **Docker** to build a scalable real-time chat app with multi-node architecture.
- Scaled application horizontally with **RabbitMQ** to handle multi-node users' subscriptions.
- Mirrored distributed storage with **Cassandra** in 6 LAN-connected computers for high writes performance.

**CP-Notebook, Algorithms**

Oct. 2018 - Now

- Created a notebook of reusable code for data structures, algorithms, and adhoc problems implementations.
- Other topics include number theories, combinatorics, and geometry.

## Education

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

Expected Dec. 2021

**Major GPA:** 3.82/4.00

**Courses:** Parallel & Distributed Systems, Computer Vision, Computer Organization, Database Systems, Design & Analysis Algorithms, Computational Statistics, Web Programming, Data Structures & Algorithms.