

Tony Ding

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EDUCATION

University of California, Los Angeles(UCLA)

September 2019 - June 2023 (Expected)

Bachelor of Science in Computer Science, GPA: **3.97/4.0**

Los Angeles, CA

- Relevant Coursework: Data Structures and Algorithms, Software Engineering, Object Oriented Programming, Database and Data Management Systems, Data Science, Artificial Intelligence, Statistics, Machine Learning, Data Mining
- Honors: Dean's Honors List, Upsilon Pi Epsilon (CS honor society), Tau Beta Pi (Engineering honor society)

TECHNICAL SKILLS

- **Languages and Frameworks:** C++, Python, Java, Bash, JavaScript, HTML/CSS, Spring Boot, React.js, Node.js
- **Tools/Concepts:** Git, SQL, MongoDB, Distributed systems, Agile Development, Scrum, Jira, Linux, Mockito, JUnit5

EXPERIENCE

Backblaze (NASDAQ: BLZE) - DMCA Takedown Automation

June 2022 - September 2022

Software Engineer Intern - Full stack

San Francisco, CA

- Built an automated system in Java to manipulate infringing contents for a cloud storage service with more than **500 thousand customers** in 175 countries and storing over **2 million terabytes** of data.
- Designed **Cassandra database** schema to store Account Takedown information in Cassandra tables.
- Constructed admin page using **React** and **Node.js** for compliance team to easily track and modify DMCA takedowns.
- Developed **Java DAO and Rest APIs** that handles add, edit, and filtered search of takedowns in the cassandra table.
- Performed **unit tests** for the API Worker Classes using **Mockito and JUnit 5**.
- Reduced average takedown time from **2 days to 8 minutes** without manual modification by automatically converting config files into valid schema and migrate them to the new Cassandra database.

UCLA DevX BruinCreates - An E-commerce marketplace for artists in UCLA ([link](#))

November 2021 - March 2022

Software Engineer Intern - Backend

Los Angeles, CA

- Implemented secured registration, login, email verification, and password reset using **JWT, Java Spring Security, REST APIs**, with user credentials securely stored in **Redis** and **MySQL** Database.
- Designed Order **controller** and **services** modules to handle order creation, cancellation, status update, and history retrieval, using **Spring Security**.
- Built **CI/CD DevOps Pipeline** using **Jenkins** with **GitHub**, leading to an estimated **16%** boost in software delivery efficiency.
- Implemented MySQL Database **read/write separation** for better scalability and system robustness.
- Deployed the website on **AWS Cloud** and added **Redis Cluster** to increase the availability of the web system service.

Sias Group - Consumption Data Analysis Web System

June 2020 - September 2020

Software Engineer Intern - Backend Tech Lead

Remote

- Facilitated management in a campus of **50k** students and faculties by leading a team of 5 backend developers to build a Campus card/POS consumption analysis and data aggregation system available through admin page.
- Relocated staffs appropriately to reduced labor cost by **9%** by leading the student developer team in deriving consumption association rules and models using **Apriori** algorithm for logistics department.
- Grouped students into different financial status using **SVM** and **K-means** in Python for financial aid department, increasing accuracy by over **12%**.
- Boosted infrastructure classification and association rule accuracy by **8%** compared to the previous term, logistic department's new decision for infrastructure renewal and maintenance resulted in the dining hall and bath area receiving **15% more positive reviews** from students compared to the previous year.

PROJECTS

Proxy Herd

February 2022 - March 2022

- Designed and developed "**Application Server Herd**" architecture using Python **asyncio** library for high-performance networking and web servers for online newspaper services with heavy I/Os.

Jpigz

February 2022 - March 2022

- Implemented a **multi-threaded** compressor **3x faster** than gzip using Java multi-threaded programming.

Bring Fitness Center Online

November 2020 - December 2020

- Created a web app using **Next.js (React)** which allows users to monitor real-time equipment availability by dynamically displaying equipment usage information through a **REST API** with a **filtered search** feature in **JavaScript** and **React**.
- Allowed users to register or login with email or Google account using **NextAuth.js** library.

GooberEats Delivery

February 2020 - March 2020

- Developed a **delivery sequence organizer** in **C++** that provides navigation using **customized HashMap data structure**.
- Reordered destinations using **Simulated Annealing** and generated path using **A*** algorithm