# Khanh (Andrew) Nguyen

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#### **Education**

Brandeis University, Waltham, MA

**Bachelor of Science** in Computer Science and Business

Expected May 2024

Dean's List (All semester)

**GPA**: 3.93/4.0

Relevant courses: Data Structures, Software Engineer for Scalability, Mobile App Development, Data Management for Data Science, Advanced Programming Techniques, Software Entrepreneurship, Linear Algebra

Experience: Teaching Assistant (COSI 12), Data Science Intern, Blockchain club Tech Lead

### **Professional Experience**

IMC Trading, Incoming Software Engineer Intern

Summer 2023

**CommScope** 

Lowell, MA

Software Engineer Intern (Spring Framework, Java, Kotlin, SingleStore, Python, Jira)

May 2022 - Aug 2022

- Collaborated with 8 other engineers to develop an application to manage and optimize DOCSIS 3.1 networks
- Developed 5 APIs and optimized processing time by 60% by testing SQL queries on 10+ tables
- Tested 10+ APIs weekly; generated 6 different scenarios to enhance validation accuracy by writing Python scripts
- Increased scale testing performance over 20 times by altering database indexes to maximize usage of all table partitions, separating the process to a multi-threading micro-service, and testing under scale conditions

Software Engineer Intern (Spring Framework, Java, Kotlin, SingleStore, Python, Jira)

Sep 2022 - Dec 2022

- Reduced JSON data file size by 75% (from 191KB to 48KB) by converting data from array to string format
- Eliminated manual errors by creating Python scripts to automatically update JSON files with the latest-version data
- Improved the efficiency and accuracy of all application message processing by implementing an automated validation system using RabbitMO, configurable delays, and data confirmation across 40+ tables

#### **Google Software Product Sprint**

Remote

Scholar (Java, Java Servlet, Bootstrap, HTML/CSS, Git)

Jun 2022 - Aug 2022

- Helped college students find affordable necessary items by building a full-stack website with 2 other developers
- Integrated Google Maps and Cloud Datastore into the application and deployed to Google Cloud Platform

#### **FPT Information System**

Hanoi, Vietnam

Software Engineer Intern (Angular, C#, .NET, MySQL, UI/UX design, Git, HTML/SASS) Nov 2020 - Aug 2021

- Collaborated with 7 engineers to integrate ERP systems for 2 Vietnamese firms FPT and Vietlott
- Developed and frequently debugged 20+ business modules covering functionalities such as user and inventory management and financial reporting; worked with the Quality Assurance team to support the deployment
- Reduced 40% management task time and enhanced security control by building a role management system

#### **Skills**

**Programming languages:** Java, C/C++, Python, SQL, C#, JavaScript, TypeScript, Kotlin, Ruby Frameworks: Spring, Angular, React, React Native, ExpressJS, MongoDB, MySQL, .NET Core, Junit, NodeJS Software: Git, VS Code, Azure, Heroku, Firebase, Jira, SVN, Slack, Eclipse, Visual Studio, Jupyter notebook

## **Projects**

Coffee Venture Social Media Platform, Technical Co-Founder, coffee-venture.web.app

Mar 2021 – Jun 2022

- Spearheaded and developed a full-stack platform for coffee enthusiasts to share, find, and review cafes and drinks
- Developed 15+ modules using Angular, C#, SQL covering functionalities of a search engine and a social media
- Designed a matching algorithm to find and suggest similar cafes based on location and categories

Nano Twitter, Team of 3, abr-nanotwitter.herokuapp.com

Feb 2022 – May 2022

- Designed and developed a full-stack baby version of Twitter with all the core components and functionalities
- Reduced error rate during scale testing from 50% at 875 concurrent users to 6.7% at 4600 concurrent users using database denormalization, a 2-layered Redis cache, and a "fanout" service
- Achieved the best performance in class final mock scale test in terms of average response rate and error rate

## **Infinity Cube Supply Chain Solution**, Riptide hackathon, infinity-cube-project.web.app

Mar 2022

- Developed fake good detector mechanism with blockchain to verify the authenticity of goods
- Integrated blockchain tools including Web3Auth for authentication and Web3JS for smart contract interaction
- Optimized transaction speed and transaction fee by 4000 times by using Solana with Rust instead of Ethereum