# Kha Tran

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Matthews, NC 28104

### **EDUCATION**

### University of North Carolina at Charlotte, Charlotte, North Carolina

Master of Science, Computer Science, August 2022 - August 2023. GPA: 3.8

Coursework: Machine Learning, Algorithm and Data Structures, Database Systems, Parallel Computing, Computer Networks and Communication, Network Based Application Development, Intelligent Systems, Mobile Application Development, Illustrative Visualization, Mining Massive Datasets

## Appalachian State University, Boone, North Carolina

Bachelor of Science, Chemistry, May 2017

#### **SKILLS**

Programming/Scripting Languages: Java, Python, SQL, JavaScript, C, C++

Frameworks and concepts: Spring, Spring Boot, Express, React, Maven, Git, Github Action, pthreads, OpenMP, MPI, High-performance computing (HPC), MySQL, PostgreSQL, REST API, Networking, Nginx, OOPS, Junit, Unit Test,

## **EXPERIENCE**

Technology Manager - Lexi Nails, Indian Trail, NC,

January 2019 - Current

- Ensured the shop's computer hardware, software, and database management systems, internet server, and telecommunication services are working properly.
- Planned, organized, and controlled electronic data operations.
- Designed, developed, and implemented annual budget systems according to organization's needs.

**Specimen Tech -** *LabCorp, Charlotte, NC,* 

April 2019 - Current

- Managed patient details on SIS system, ensuring accurate registration and accessioning.
- Processed and routed specimens to staging areas, maintaining proper protocols.
- Packed and shipped specimens to designated lab sites, ensuring efficient delivery.

#### **PROJECTS**

# **Kitchen Equipment Online Store**

- Developed a full-stack web app showcasing an online store with user authentication, browsing, searching, cart management, and order processing.
- Utilized React for the frontend, communicated with a Spring backend via API calls, and stored data in PostgreSQL hosted on a cloud provider.
- Implemented a Single-Page Application (SPA) approach, incorporating user authentication and RESTful APIs.

# **Item Trading Website**

- Developed a dynamic item trading web application utilizing MEN stack.
- Employed MVC architectural pattern to ensure efficient data flow and maintainable codebase.
- Leveraged Mongoose ODM to seamlessly integrate MongoDB, optimizing data storage and retrieval.
- Implemented a secure user authentication system, and rigorously enforced server-side input validation and data sanitization.

#### **Credit Scoring with Machine Learning**

- Constructed a machine learning model to assess credit risk, achieving 86% confidence using a neural network model.
- Utilized Python's scikit-learn library for data processing, feature extraction, and model testing.

#### **Dynamic Workload Partition in MPI**

- Adapted numerical integration for dynamic workload partitioning using a master-worker system.
- Implemented concepts of distributed memory systems and Message Passing Interface (MPI) in a High-Performance Computing (HPC) cluster environment.