

# Allen Dai

☎ 617-820-0825 | ✉ allendai2@outlook.com | 🌐 allendai1 | 🌐 allen-dai1

## EDUCATION

---

### University of Massachusetts Boston

2020 – 2024

*Bachelor of Arts in Computer Science | 3.61*

Boston, MA

- **Coursework:** Data Structures & Algorithms, Linear Algebra, Discrete Math, Computation, Higher-level languages, Operating Systems

## EXPERIENCE

---

### Capital One

June 2023 - Aug. 2023

*Software Engineer Intern*

Cambridge, MA

- Optimized the creation and training process of embeddings for 1-day and 7-day transaction datasets to handle up to 3 million transactions in order to enhance performance and accuracy
- Developed visualization tools to represent embedding spaces and transaction graph nodes to facilitate enterprise applications such as fraud detection
- Engineered tools for similarity search and comparison, leveraging K-nearest neighbors, FAISS, and AutoFaiss algorithms to improve data analysis and retrieval

### Staples Inc.

June 2022 - Aug. 2022

*Software Engineer Intern*

Framingham, MA

- Implemented React components for front-end store products to enhance user interactions and functionality
- Conducted unit testing of components, to ensure reliable code through continuous integration and automated testing

### UMass Boston

Jan 2022 – Present

*Subject Tutor*

Boston, MA

- Provided one-on-one and group tutoring sessions for Python, Data Structures and Algorithms, and C
- Assisted students in developing problem-solving skills and preparing for exams

## PROJECTS

---

### YouTube Download Chrome Extension

- Developed an extension enabling users to download YouTube videos as an MP4
- Deployed and maintained a back-end server to manage client requests and interface with YouTube

### allendai.info

- Designed and developed a personal website utilizing Figma for prototyping and practicing mobile-first design principles
- Built a responsive and performant Progressive Web App using Gatsby.js, incorporating GraphQL for efficient data querying

### File Sharing App

- Developed and deployed a web application enabling users to upload and share files via URL and QR code
- Managed Firebase back-end services, including authentication, real-time databases, and cloud storage buckets

## SKILLS

---

**Languages :** JavaScript (React.js), Python, HTML/CSS, TypeScript, Java, C, GraphQL

**Technologies:** Apache Spark, SciKitLearn, PyTorch, Git, Figma, Firebase, GatsbyJS, NodeJS