# Suraj Ramchandran

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#### **EDUCATION**

Northeastern University

Sep 2021 – Present

Khoury College of Computer Sciences

Expected Graduation: May 2025

Candidate for Bachelor of Science in Computer Science, GPA: 3.8 / 4.0

Boston, MA

**Relevant Coursework:** Machine Learning 1, Networks, Object-oriented Design, Algorithms, Linear Algebra, Database Design, Computer Systems, Mathematics of Data Models, Accelerated Fundamentals of CS I and II

## **TECHNICAL SKILLS**

**Programming Languages**: JavaScript, Python, Java, TypeScript, SQL, HTML, CSS **Frameworks**: React, NestJS, NodeJS, Express, TailwindCSS, Prisma

Tools: Firebase, Git, Linux Shell, Docker, JUnit 4, PostgreSQL, Google Cloud

**EXPERIENCE** 

## Sandbox at Northeastern University

Sep 2022 – Present

Software Developer

Boston, MA

- Developed a full stack web app for a university professor and the merit committee they lead using TypeScript
- Designed and implemented 20+ REST API endpoints to perform CRUD operations on a Postgres relational database
- Implemented user authentication using JSON Web Tokens and Passport to protect endpoints across 4 user levels
- Collaborated with developers for backend design decisions and code reviews to ensure efficient operation and consistent style

# Northeastern University

Sep 2022 – Dec 2022

Discrete Structures Teaching Assistant

Boston, MA

- Conducted **6+** office hours a week to facilitate learning and coached students develop a deeper understanding of discrete mathematics concepts such as logic, combinatorics, and probability
- Graded weekly homeworks and exams for a 750+ student cohort and provided personalized feedback

### TAMID Group at Northeastern University

Sep 2021 – May 2022

Software Developer - Technology Consulting

Boston, MA

- Engineered a web app using React and Firebase for a startup that automated the Secret Santa matching process
- Spearheaded good database design in weekly meetings to ensure efficient operation and low cloud cost
- Peer programmed k-means clustering algorithms, that ran as independent and scalable Javascript Cloud Functions, to group users based on multiple common interests

# **PROJECTS**

# Siglo - (Won "most tech. challenging" product at HackBeanpot 2022)

Feb 2022

- Created a software input device, in a team of 5, that used hand gestures to control the keyboard to make computing more accessible
- Wrote custom logic to send keystrokes based on hand positions determined via OpenCV and a pre-trained neural network

#### **University Recreation Tracker**

**Dec 2022** 

- Constructed a NoSQL database containing **15,000+** rows by web scraping the recreation website using a scheduled Javascript web scraper
- Created graphs to show daily and weekly usage trends for 5 on-campus gyms using React and ReCharts to determine the optimal times to visit a crowded university gym

# **INTERESTS**

Traveling, Photography, Weightlifting, Deep learning, Real estate