# Ethan Liu

### EDUCATION

### Northeastern University

Boston, MA

Bachelor of Science in Computer Engineering, Minor in Computer Science; GPA: 3.80/4.00

May 2024

Courses: Fundamentals of Engineering Algorithms, Fundamentals of Networks, Embedded Design: Enabling Robotics, Database Design, Fundamentals of Computer Science II, Fundamentals of Digital Design, Foundations of Cybersecurity

### Experience

# Ultimate Kronos Group (UKG)

September 2023 – Present

Software Engineer Intern

Lowell, MA

- Achieve over 90% code coverage by maintaining over 10 comprehensive unit tests in Java using JUnit and Mockito
- $\bullet$  Design and implement RESTful APIs with JAX-RS, achieving an efficiency improvement of 20% in data exchange and communication between software components
- Enhance location selector performance on WFM through API testing and optimization of endpoints using Postman
- Participate in Agile methodology practices, contributing to retrospectives, design reviews, and pair programming sessions, promoting continuous improvement and effective collaboration within the team

**Hudl** May 2023 – August 2023

Software Engineer Intern, Front-End Platform

Lincoln, NE

- Developed an internal project overview page that pulls data from package.json files within a monorepo utilizing React, Typescript, and Node.js
- Resolved 10+ UI and accessibility defects on Hudl's front-end React/React Native component libraries
- Implemented 15 Storybook stories for Hudl's Fan application, leading to a 30% increase in total coverage and serving as an example for other teams with Storybook
- Specialized in rendering components and enhancing accessibility in the migration of 20 unit tests from Enzyme to React Testing Library

Generate

September 2022 – December 2022

Build Studio Software Engineer

Boston, MA

- Contributed to the development of the Jurni mental health app, designed to track emotional changes over time through journaling, utilizing Natural Language Processing (NLP)
- Utilized Python and the PRAW (Python Reddit API Wrapper) library to scrape 100+ posts from Reddit
- Leveraged the spAcy library to perform in-depth analysis of specific sentences, employing tokens and vectors for nuanced emotion recognition and sentiment analysis
- Implemented data visualization features using Seaborn and Matplotlib, enabling users to easily comprehend the evolution of their emotions over extended periods

### Projects

Personal Website: ethanliu.vercel.app (for additional information and projects)

#### Blog App

- Developed a dynamic web application using the MERN stack that allows users to create and edit their blog posts
- Leveraged Express.js as the backend and MongoDB as the database to create a flexible server-side architecture for data storage and retrieval from Amazon S3 buckets
- Integrated secure register/login functionality with authentication using JWT and bycrypt.js
- Utilized: MongoDB, Express, React, Node.js, Javascript, HTML, CSS

#### App-Etite

- Designed a full-stack app for users to browse a database of recipes and ingredients tailored to their preferences
- Constructed 20 SQL queries to insert and analyze the data and relationships among 12 tables
- Modeled a detailed Entity-Relationship diagram with table and column names
- Utilized: MySQL, Java, JavaFX, JDBC API

## TECHNICAL SKILLS

Languages: Javascript, Typescript, Java, Python, C++, SQL, HTML/CSS, SystemVerilog

Frameworks: React, Node.js, Material-UI, Angular, Storybook, Jest, JUnit, JAX-RS (RESTful API)

Developer Tools: Git, Docker, Postman, AWS, GCP, Kubernetes, Jenkins, Webpack, Gradle, IntelliJ, Jira, Figma

Libraries: Redux, Leaflet, Pandas, NumPy, Matplotlib, Seaborn, spaCy