# OLIVIER JOHN NDJIKE NZIA

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## **EDUCATION**

# Northeastern University

Boston, MA

B.Sc. Computer Science | GPA: 3.6

Expected May 2025

Relevant Coursework: Object-Oriented Design, Algorithms & Data Structures, Computer Systems,
Networks & Distributed Systems, Web Development, Discrete Structures, Logic & Computation

# TECHNICAL SKILLS

Languages: Java | TypeScript | Python | Go | C/C++ | SQL | GraphQL | Unix Shell | HTML/CSS Frameworks/Technologies: PostgreSQL | Next.JS | React | Express | Pinecone | Git | Bash/Zsh | Redis

# EXPERIENCE

**UKG** - Software Engineer Co-Op

Jan 2024 - Present

- Worked within the Source Control Management team to automate migrations between multiple git instances
- Developed and maintained Jenkins pipelines to regulate company access groups and repository permissions

# Generate Product Development Studio - Software Engineer

Student Activity Calendar

Jan 2024 - Present

- o Developing an application to facilitate club management and student engagement for the NEU student body
- Enabled natural language search through Pinecone vector embeddings to improve query performance
- Designed comprehensive integration tests to validate data flow and coherence between different backend systems

Compound

Aug 2023 - Dec 2023

- o Built Compound, a full-stack financial literacy application tailored to users' priorities and existing experiences
- o Developed API endpoints using NextJS and NextAuth to transfer data from Prisma and PostgreSQL database
- o Constructed E2E tests with JEST to simulate and ensure seamless user flows as well as secure data transfers

#### Khoury College of Computer Sciences - Computer Science TA

Sep 2022 - Dec 2023

- o Taught Computer Systems and Discrete Structures concepts such as Assembly, virtual memory, and combinations
- o Diagnosed and debugged code during weekly grading sessions to provide comprehensive feedback for 100+ students
- o Offered individualized and group-led guidance to students during office hours and exam review sessions

# PROJECTS

**Taskmaster** | PostgreSQL, Next.js, Node.js, Express, Redis

*GitHub* ☑ | Jun 2023 - Aug 2023

- Engineered a full-stack issue and **project management interface** that enables users to create, assign, and track projects, tickets, and bugs using **Agile** and **SDLC** methodologies
- $\circ$  Designed a relational database normalized up to 3NF using PostgreSQL to securely and efficiently store app data
- $\circ$  Implemented caching and cache invalidation through  $\bf Redis$  to control traffic to PostgreSQL database, and improve app responsiveness while maintaining data integrity and validity
- Leveraged Express to build and optimize REST API routes allowing CRUD operations in PostgreSQL database
- o Implemented authentication and role-based authorization by using hashes to enforce separate levels of privileges

#### Little Lens | ReactJs, JavaScript, GraphQL, Sanity.io

*Live Demo* 🗹 | Mar 2023 - Jun 2023

- o Developed a responsive image sharing web application with search querying, commenting, and a live feed
- o Designed schemas in a backend database using GraphQL and GROQ to send queries through the Sanity.io service
- Enabled authentication through Google OAuth to securely store user data and manage sessions for login/logout

#### Candid Conversations | JavaScript, Python, Sockets

*GitHub* ✓ | Dec 2022 - Jan 2023

- Built a socket-enabled chat room application allowing for text communication between multiple clients over LAN
- Enforced TLS encryption protocol onto sockets to securely transfer data packets between server and clients
- Integrated an intuitive UI through JavaScript to streamline user interactions

## Polished Pixels | Java, JUnit, Swing

*GitHub* ✓ | Oct 2022 - Dec 2022

- Developed an image processing application with 11 different image filters using kernels and convolution matrices
- Implemented an intuitive CLI and a Swing GUI to enable interactions with the processor
- Streamlined conversions between different image formats to support seamless imports and exports
- o Utilized JUnit and mock classes to test classes and interactions between model, view, and controller packages