

Ayush Dhananjai

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EDUCATION

Northeastern University – Boston, MA, USA

Sept. 2020 – Aug. 2023

Master of Science in Computer Science

GPA: 3.88/4.00

Relevant coursework: OOP, Databases, Mobile Development, Web Development, Data Structures and Algorithms, Computer Systems and Network Fundamentals, Computer Systems Security, Unsupervised Machine Learning/Data Mining.

Boston University – Boston, MA, USA

Sept. 2015 – May 2019

Bachelor of Arts in Astronomy and Physics

TECHNICAL SKILLS

Languages/Libraries: Java, JavaScript, Python, C/C++, HTML5/CSS3, MySQL, Node.js, React.js, Redux.js, Knockout.js, jQuery.

Tools: MongoDB, Firebase, Git, Jira, Confluence, Linux, Docker, Jenkins, Maven, Tomcat, TCP/IP, AWS EC2.

Frameworks: Java EE/J2EE, Express.js, Oracle JavaScript Extension Toolkit (JET), JUnit, Jest.

PROFESSIONAL EXPERIENCE

Oracle Health and AI - Burlington, MA, USA

June 2022 – Dec. 2022

Full Stack Software Engineer Co-Op

- Deployed a responsive comment section feature into Oracle's Clinical One product leveraging JavaScript, HTML, CSS, Node.js, Knockout.js, Oracle JavaScript Extension Toolkit and MVVM model.
- Collaborated with four senior developers in an Agile environment supported by Jira, Confluence and GitLab.
- Accelerated pharmaceutical clinical trial development by 4 weeks by enabling testers to write feedback (via comments and replies) on clinical trials in the "testing" phase and convey feedback to teams designing the clinical trial.
- Designed and created SQL tables, queries and RESTful APIs from scratch to facilitate client-server communication.
- Implemented back-end logic using Java, Java Persistence API, MySQL, Apache Maven, Tomcat, Jenkins and Docker.
- Improved back-end overall performance by 15% through indexing columns on tables containing comment data.

Lutron Electronics - Boston, MA, USA

Jan. 2022 – June 2022

Embedded Software Engineering Co-Op

- Formulated a Proof of Concept to integrate "Matter," a networking protocol enabling cross-platform compatibility of IoT-supported devices, into Lutron's highest-selling smart hub device (Caséta Wireless Smart Bridge).
- Operated as part of an Agile team of 8, attending daily Scrum meetings to track project progress by harnessing Atlassian Jira, Atlassian Confluence and Bitbucket.
- Applied SOLID design principles and coded in C++, lowering overall application runtime complexity from $O(n^2)$ to $O(n)$.

Northeastern University – Boston, MA, USA

Jan. 2021 – Dec. 2021

Graduate Teaching Assistant

- Led and tutored cohorts of 10 students in Object Oriented Programming (Java) and Foundations of CS (Python) - average cohort grades were 10% higher than class averages for assignments, quizzes, and exams.
- Achieved an average cohort exam grade of 97%.
- Achieved > 95% success rate in providing debugging help to students in 1-on-1 mentoring sessions.

SharkNinja – Needham, MA, USA

Mar. 2020 – July 2020

Data Science Intern

- Created a Python text classifier using Scikit-Learn's Random Forest algorithm to categorize 20,000 consumer reviews of the Shark IQ Robot® Vacuum into 50 core product issues, reducing pain-point identification time by 70%.
- Analyzed 1,000+ hours of data collected from in-person studies of prototype robots using the DOMO software to uncover consumer usage patterns, resulting in the development of new marketing strategies that boosted sales by 25%.

RELEVANT PROJECTS

Content Delivery Network (CDN) | Python, Bash | [GitHub](#)

Mar. 2023 – Apr. 2023

- Developed a CDN to deliver web content hosted on a server at Northeastern University to clients using DNS redirection and cached HTTP replica servers, resulting in an average HTTP server latency of 0.005s and DNS latency of 0.003s.
- Utilized Python 3.8 to implement DNS and HTTP server logic and shell scripts to deploy code.

DuoFingo – DuoLingo for Finance | Java, XML | [GitHub](#)

July 2022 – Aug. 2022

- Created an Android application with a team of 4, teaching users finance basics. Users can take a weekly quiz using Google's Geolocation API to rank users (based on quiz scores) globally and locally (current country).
- Utilized Java, XML for the front-end and Cloud Firestore for the back end to allow efficient client-server communication.

TravelScraps | JavaScript (React.js), HTML, CSS, MongoDB | [GitHub](#)

Sept. 2021 – Dec. 2021

- Built a social media site for travelers, featuring options for user registration as either a "traveler" or a "travel guide." Users can make posts, "like," and comment on other users' posts – tested with 50+ real-world users.
- Elevated user experience by pulling data from a weather API, permitting users to view weather conditions of a potential destination and plan accordingly - received positive feedback from 100% of all test users.
- Leveraged JavaScript, HTML, CSS, Express.js, React.js, Redux.js, Node.js for front-end, MongoDB for back-end.