Aaryaman Sharma

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"Extensive experience in leadership, software development and neurological research."

EDUCATION

B.S. Computer Science, University of Massachusetts Boston, GPA 3.44

May 2022

- Advanced Algorithms
- Computer Architecture & Organization
- Operating Systems
- Theory of Computation
- Biomedical Signal and Image Processing
- Intro to Software Engineering
- Computer Graphics

Compilers

EXPERIENCE

Android Developer | Art Sphere Inc, Philadelphia, PA

Sep. 2022 – Present

- Built a mobile app using **Android Studio**, **React Native** and **Azure**, which supports user authentication and cloud storage.
- Shipped a front-end feature for onboarding new volunteers to join Art Sphere Inc.
- 20-25 daily active users as of April 2023.
- Conducted a user experience survey of 5 volunteers to settle on the most intuitive UI.
- Currently working in a team of 4 to design, plan and implement the volunteer verification workflow.

Researcher | UMass Boston Machine Psychology Group, Boston, MA

Oct. 2021– March 2022

- Published a white paper in Frontiers research journal, through a collaborative effort between three students and doctors at the NYU's Department of Neurology.
- Created a 3D, web-based, visualization tool for clinicians who perform surgery on epilepsy patients, implemented in **JavaScript** and Slice Drop.
- Generated label maps for various types of seizures using **X-Toolkit**, and **Python**, driving more insight into patient health.

PROJECTS

BlockNotify | React, MongoDB, NodeJS, Docker, Solidity

Feb. 2023–March 2023

- Led a team of 2 other developers in Eth Denver Hackathon 2023 to develop a notification system which monitors blockchain events such as transactions and fund movements.
- Integrated Twilio and OAuth to the pipeline which enabled real-time notifications via SMS.
- Developed smart contracts using **Solidity** for Ethereum transaction events.

Dancing Virtual Robot | JavaScript, WebGL, HTML, CSS

Oct. 2021- Nov. 2021

- Developed a virtual robot which can dance, walk, and perform other actions.
- Constructed the robot's skeletal structure using Three.js library, WebGL framework, and Robot.js to control its x-y-z coordinates.

Spaceship Game | JavaScript, WebGL, HTML, CSS

Sep. 2021– Oct. 2021

- Designed a spaceship shooting game using WebGL, JavaScript, and HTML.
- Uploaded the completed game on a public facing URL with a feedback button 450 plays till date.

Java Compiler | Java

Sep. 2021 – Dec. 2021

- Modified features of a basic Java compiler to include custom scanning, parsing, analysis, and code generation.
- Implemented 100+ constructs for operations and type checking, enabling successful program parsing.

TECHNICAL SKILLS

- Languages Python, Java, TypeScript, WebGL, Racket, LaTeX, C, HTML5, CSS
- Frameworks React. is, Redux, Node. is, NPM, Next. is, Django, Flask, Express, Pandas
- Database MongoDB, MySQL, PostgreSQL
- Development Tools Microsoft Azure DevOps, Android Studio, Jupyter Notebook, Terminal
- Skills Unit testing, Git, RESTful APIs, Object-Oriented Programming, Algorithm development, Functional Programming, Machine Learning, Containerization with Docker