

Utkarsh Majithia

+19256990576 | utkarsh.majithia13@gmail.com | 401N Russel St, West Lafayette Indiana

EDUCATION

Purdue University

B.S. Computer Science, Minor Electrical Engineering, Certificate of Entrepreneurship

West Lafayette, IN

Aug. 2023 – Present

EXPERIENCE

SWE Intern

Jio

May 2024 – August 2024

Mumbai, India

- Designed and presented 10 front-end prototypes using **TailwindCSS**, **MUI**, and **ReactJS**, improving UI/UX consistency across internal tools and helping streamline operations.
- Led the revamp of the **Jio IP Search application**, migrating it from **.NET** to **NextJS**, cutting load times by **50%** while **rewriting API connections** to ensure a smooth transition.
- Addressed **state management challenges** by implementing **Redux**, ensuring **efficient data flow** and synchronization between components in the new **NextJS architecture**.
- Created a step-by-step plan for Jio to transition from a **monolithic .NET system** to a **distributed NextJS architecture**, improving **scalability**, **maintainability**, and **system performance**.

Cybersecurity Intern

RAKBANK

June 2022 – July 2022

Dubai, U.A.E.

- Conducted **vulnerability assessments** on a target device, identifying **port weaknesses** and exploitable scripts, and compiled a **detailed security report** with findings.
- Researched and implemented **security defenses** against common infiltration methods such as **Cross-Site Scripting (XSS)** and **Cross-Site Request Forgery (CSRF)** on a test environment.
- Gained proficiency in cybersecurity tools such as **Burp Suite** and **Nmap**, utilizing them for **network scanning** and **penetration testing**.

PROJECTS

Tetreon | JavaScript, Manifest V3, PhaserJS

January 2025

- Developed a Tetris Chrome Extension using **JavaScript**, implementing **Manifest V3** for enhanced security and modern browser compatibility.
- Utilized **PhaserJS** to create a smooth and responsive **game engine**, ensuring optimal performance within the Chrome environment.
- Integrated **local storage** to save high scores and game states, providing a seamless user experience.
- Improved performance by offloading computations to a **Web Worker**, reducing main thread blocking and ensuring **lag-free user input**.

PokerBot | NextJs, ReactJS, Numpy, Pandas, Python

September 2024

- Developing a PokerBot to compete in the **MIT Pokerbots Competition**, leveraging **CFR** (Counterfactual Regret Minimization) for strategic decision-making.
- Built a **ReactJS** and **Next.js** frontend to allow public interaction with the bot while implementing a **Python-based backend** for training and gameplay simulation.

WebScraper Trader | Puppeteer API, Javascript, Excel, SQL

May 2023

- Developed a **web scraper** to detect companies that recently received **defense contracts**, providing insights into potential stock movements.
- Utilized **Puppeteer API** and **Node.js** to automate data extraction, comparing financial information for **publicly traded companies**.
- Logged stock prices using **Excel** and **SQL**, tracking changes over time to analyze potential market impact.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (MySQL), MongoDB, JavaScript, HTML/CSS, Latex

Frameworks: React, Node.js, NextJS, Flask,

Developer Tools: NeoVim, Bash, Git, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, AWS