

Archit Thakur

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EDUCATION

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- University of Wisconsin-Madison / B.S - Computer Science** Madison, WI [Sept 2019-May 2023]
Courses: Machine Organization, DBMS, Data Structures, Algorithms, Artificial Intelligence, Cryptography, VR, Software Engineering,

SKILLS SUMMARY

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- Languages:** Python, Java, C, C++, JavaScript, SQL, Bash, HTML, CSS, Swift
 - Frameworks:** Nest, Node.js, React, Cypress, Jest, Webpack, Scikit, NumPy, TensorFlow, PyTorch, Mongo, REST API
 - Tools:** Docker, GIT, MySQL, SQLite, Postman

EXPERIENCE

NCR Corporation / Software Engineer Intern

 Atlanta, GA [May 2022 - Aug 2022]

- Remodeled, Operated and optimized Emerald XLR retail software used for the POS system, creating a simulator mocking functionalities of the peripheral devices and the payment portal.
- Developed a React web app Frontend displaying the peripheral devices (using Javascript, HTML, CSS, React, MUI), and the checkout portal allowing users to interact with the payment system smoothly.
- Implemented a back-end model to receive the requests and collect the items from the database, adding it to the cart facilitating their shopping experience.
- Optimized the app before deployment by reducing images, minifying the code, and using caching techniques.
- Implemented a WebSocket for low-latency real time exchange of new data entry and the job request.
- Built unit-test methods to test in Jest to ensure correct functionality of the back-end as well as the front-end code. Used Cypress ensuring end-end functionality of the app.

Amazon ShopBop / Software Engineer

 Madison, WI [Sept 2022 - Dec 2022]

- Designed and implemented a swipe-able front-end interface that allows users to swipe left and right on different articles of clothing, solving the Indecision they face to purchase an article. Made shopping more interesting by shipping randomly selected items selected from the array of liked content, adding a surprise element to shopping.
- Implemented a Mongo-DB Database, taking data received by the front-end and running processes on them based on the business logic.
- Developed a dashboard with relevant metrics, including history of orders and several business insights including revenue, boxes ordered, and users subscribed. Integrated the front-end, the backend, and the Database using API
- Python, JavaScript, CSS, Mongo, Figma, Jira, Agile, Kanban

Department of Maths, UW / Teaching Assistant

 Madison, WI [Sept 2021 - Present]

- Fabricated a tutorial for the students helping them conceptualize the concepts better. Held weekly office hours; grade homework, exams, or projects
- Coordinated with Professor in making exams, and homeworks. Developed supplementary notes; collaborated with the students for Calculus II [Integrals, Differential Equations, Series, and Multi-variable calculus]

PROJECTS

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- Retro-Me:** Engineered a Retro gaming console with a display, speaker, and ability to connect to a device using bluetooth technology on Raspberry Pi. It consists of HDMI cables, USB ports, a port for connecting with wired headphones, and a charging dock. Programmed games like Tetris, TicTacToe, Skyroads, and Snake to be installed and run on the console using Programming languages like C, python, C++, as well as libraries such as SDL library, Pygame, and Unity. Installed and Upgraded the Raspberry Pi OS to be used as a platform to run the games flawlessly. Fabricated a 3-D designed body for the gaming console using an application called SolidWorks. Assembled all the individual components to finally create the gaming console for final use. Skills: Retro gaming console design and development; Raspberry Pi platform utilization; Proficiency in C, C++, and Python programming languages SDL, Pygame, and Unity libraries; Integration of display, speaker, HDMI cables, USB ports, and wired headphone connectivity; Bluetooth technology implementation; Raspberry Pi OS upgrade and optimization; 3D design using SolidWorks; Component assembly and quality assurance; Strong problem-solving and attention to detail.
 - Peripheral Simulator:** Electron app that simulates and connect the peripheral devices of a POS system to the Emerald software backend remotely. Implemented the backend and frontend of device objects and of the payment session that took data, sending to the backend Emerald App to perform actions used by the user., Used typescript, react, and css to develop and style the simulator., Developed an API to connect the devices with the Payment simulator, and used REST API to connect with Emerald Backend. making it easier for developer to test the functionalities, and providing an ease of demo. Tech: Jest-js, Cypress, MUI, React, Node, Webpack, JavaScript, Css, Python,
 - Neuraworks:** Predicting labels for Hand-written images using machine learning tools. Implemented data-loader function; build-model function to build a framework of neural network; train-model function to train on the built framework; evaluate-model to evaluate the accuracy and average loss; Predict- model function to predict the final output class labels. Tech: Python, Scikit-Learn, Tensor Flow, PyTorch
 - Bop@Top:** A swipeable interface that allows users unlimited swipes, left and right on different articles of clothing, solving the Indecision they face to purchase an article. People choose from different tiers (depending on price) to be able to swipe through the articles shown. Developed a dashboard with relevant metrics, including history of orders and several business insights including revenue, boxes ordered, and users subscribed. Created a preference matching algorithm to show suggested articles based on what they like. Tech: Python, JavaScript, CSS, Mongo DB