

Abhee Jani

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EDUCATION

University of Illinois at Urbana-Champaign

August 2021 – December 2024

Bachelor's in Computer Engineering w/ Minor in Statistics

Relevant Coursework: Introduction to Artificial Intelligence, Data Structures, Digital Systems Laboratory, Computer Systems & Programming, Operating Systems, Database Systems, Algorithms/ Models of Computation

East Brunswick High School

September 2017 – June 2021

EXPERIENCE

Quantum and Nano-Photonics Lab UIUC

September 2022 – Present

Research Assistant

Champaign IL

- Crafted a multithreaded Python interface for nanoparticle scanning, enhancing data acquisition rates by 300%.
- Developed an application to interface with E-712 Digital Piezo Controller, single-photon detectors, and photon counting modules, transitioning from LabVIEW to enhance efficiency and experience in real-time data analysis

Discover Financial Services

June 2024 – September 2024

Software Engineering Intern

Riverwoods IL

- Facilitating migration of 3 of our team's services to OpenShift, leveraging Java and AWS technologies
- Modernizing monitoring/alerting systems and data dashboards by transitioning from AppDynamics to Datadog
- Provisioning multiple third-party tools through using Jenkins in the CI/CD pipeline using Trident for efficient configuration management

Abbott Laboratories

June 2023 – May 2024

Software Solutions Intern

Champaign IL

- Developed a Python-based database management system, leveraging optimized SQL queries and efficient data structures to enhance procurement data retrieval speeds by 50%.
- Enhanced document management and collaboration for over 300 users by implementing SharePoint solutions integrated with Power BI for in-depth data visualization.

Echo Kids

May 2022 – August 2022

Frontend Software Engineering Intern

Remote

- Designed interactive music-related game webpages using JavaScript, enhancing user engagement for students
- Leveraged technologies including Bubble.io for application development and Figma for UI/UX design prototyping.

PROJECTS

Smart Stroll (Modified Dijkstra's Algorithm in Python)

April 2024

- Developed an optimized route planner using a custom graph-building algorithm and modified Dijkstra's algorithm.
- Implemented real-time landmark integration and route optimization based on user input.
- Utilized Google Maps API to retrieve and integrate longitude and latitude values for accurate geolocation.
- Engineered a dynamic, traversable graph structure utilizing real-time walking distance data between key locations.

Flight Insight Full Stack Application

November 2023

- Developed a full-stack application to analyze and visualize flight delay patterns using Python, Flask, React, and SQL.
- Applied conditional indexing techniques to enhance scalability and query response times in large datasets.
- Implemented advanced indexing strategies to optimize database query performance and improve operational efficiency.

Custom Linux-Based Operating System

December 2023

- Developed kernel modules in C, focusing on scheduling, memory management, synchronization, and file management
- Implemented custom system calls for OS and optimized device drivers, ensuring integration with user applications

SKILLS

Languages: Java, Python, C, C++, JavaScript, HTML, CSS, R, MySQL, MongoDB, Neo4j

Tools: Git, GitHub, Docker, GCP, AWS, Azure, Jupyter Notebook, Figma, Microsoft Flow, OpenShift

Frameworks and Libraries: Spring Boot, NumPy, Pandas, React, Node.js, PyTorch, Flask, TensorFlow, Linux, Django