# Abhee Jani

abheejani.github.io | abheejani@gmail.com | linkedin.com/in/abheejani/ | (732) 331-7179

## 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

## EXPERIENCE

**Quantum and Nano-Photonics Lab UIUC**                                     *September 2022 – Present*
*Research Assistant*                                                                         *Champaign IL*
- Crafting a multithreaded Python interface for nanoparticle scanning, enhancing data acquisition rates by 300%.
- Developing applications to interface with E-712 Digital Piezo Controller, single-photon detectors, transitioning from LabVIEW to enhance efficiency and experience in real-time data analysis
- Engineered scalable integration modules for 5+ hardware components, optimizing data pipelines by 40% with precise value mapping

**Discover Financial Services**                                                       *June 2024 – September 2024*
*Software Engineering Intern*                                                               *Riverwoods IL*
- Facilitated migration of 3 of our team's services to OpenShift, leveraging Java and AWS technologies
- Modernized monitoring/alerting systems and data dashboards by transitioning from AppDynamics to Datadog
- Provisioned multiple third-party tools by using Jenkins in the CI/CD pipeline using Trident for efficient configuration management

**Abbott Laboratories**                                                               *June 2023 – May 2024*
*Software Solutions Intern*                                                                 *Champaign IL*
- Implemented 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*                                                       *Chicago IL*
- Designed interactive music-related game webpages using JavaScript, enhancing user engagement for students.
- Optimized JavaScript logic, slashing page load times by 30% and enhancing feature scalability.
- 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*
- Pioneered 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*
- Created a full-stack application to analyze and visualize flight delay patterns using Python, Flask, React, and SQL.
- Applied conditional indexing techniques to enhance large datasets scalability and query response times.
- Utilized advanced indexing strategies to optimize database query performance and improve operational efficiency.

**Custom Linux-Based Operating System** 🔗                                         *December 2023*
- Built 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