Shlomo Dahan

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Education

University of Pennsylvania — Philadelphia, PA
Master of Computer & Information Technology — *Jan. 2023 – Dec 2024*

University of Miami — Coral Gables, FL
Bachelor of Business Administration in Finance, Minor in Accounting — *Aug. 2015 – Dec 2018*

Projects

Algorithm Visualizers: Sorting & Pathfinding | *React, TypeScript, Next.js, TailwindCSS* Feb 2024 - Mar 2024

- Developed two separate web applications to visualize core computer science algorithms: one for sorting algorithms and another for pathfinding algorithms.
- Sorting Visualizer showcases classical sorting algorithms including Merge Sort, Quick Sort, and Bubble Sort with interactive animations and efficiency comparisons.
- Pathfinding Visualizer facilitates understanding of graph search algorithms like A*, Dijkstra's, and Greedy BFS through a grid-based UI allowing users to dynamically alter the terrain and observe algorithmic path selection in real time.
- Employed React and Next.js for scalable front-end development with Tailwind CSS for responsive design, enhancing user engagement and educational value.

Advanced Network Programming | *C++, NS3* Sep 2023 - Dec 2023

- Engineered link state and distance vector routing protocols optimizing network throughput and reliability in distributed systems with Dijkstra's and Bellman-Ford algorithms.
- Developed a peer-to-peer search engine using a custom Chord Distributed Hash Table, enhancing data indexing and retrieval.
- Implemented dynamic node management for efficient data reshuffling and reduced search time complexity utilizing Chord finger tables.

VeriCreds | *React, Next.js, Redux, Tailwind CSS, Axios, Flask, PyMongo, Postman* Apr 2023 - Aug 2023

- Contributed to the full-stack development of a Web3 document-sharing solution, showcasing decentralized file management and blockchain integration.
- Engineered front-end interface and authentication features, integrating backend services for seamless document management and secure access control.
- Leveraged IPFS for document upload and sharing, ensuring secure and efficient data handling with blockchain technology.

COVID Pattern Analysis | *PyTorch, scikit-image, pandas, Google Colab* Nov 2022 - Dec 2022

- Developed a machine learning model to predict COVID-19 infections from X-ray images with over 96% accuracy, utilizing transfer learning and ResNet18.
- Optimized model training and validation through effective data preprocessing and augmentation techniques, enhancing prediction reliability and performance.
- Implemented efficient GPU usage strategies on Google Colab, facilitating accelerated model training and evaluation processes.

Experience

J.P. Morgan Chase & Co — Miami, FL
Private Banking Analyst — *June 2018 – July 2021*

- Managed UHNW portfolios, contributing to a $500MM growth in AUM through advanced analytics and Python automation, while reducing report generation time by 30%.

Technical Skills

Languages: Java, Python, C++, JavaScript, TypeScript, HTML/CSS, C
Frameworks/Platforms: React, Next.js, Flask, JUnit, Tailwind CSS, Redux, NS3, PyTorch
Developer Tools: Git, Docker, VS Code, PyCharm, IntelliJ, Eclipse, Google Colab, Postman
Libraries: Pandas, NumPy, Matplotlib, Scikit-image, Axios
Technologies/Protocols: PyMongo, Distributed Systems (Chord Distributed Hash Table)