**DHANUSHKUMAR JAYAKUMAR VASUKI**

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**EDUCATION**

**NEW YORK UNIVERSITY New York, United States**

Master’s in Computer Engineering **Sep 2025 - May 2027**

**SASTRA UNIVERSITY Thanjavur, India**

Bachelor’s of Technology in Computer Science and Engineering **Aug 2020**

* Cumulative GPA: 8.71/10.00

**PROFESSIONAL EXPERIENCE**

**TATA Consultancy ServicesKochi, India**

Associate System Engineer **July 2024 – July 2025**

* Completed training focused on Core Java (OOPs, Collections, Interfaces, Exception Handling), Advanced Java (Servlets, JSP, JDBC), UI development (HTML, CSS, JavaScript), SQL/PL SQL, and Unix fundamentals.
* Provided production support for mainframe systems by monitoring batch jobs, resolving abends, handling critical incidents, and ensuring strict SLA compliance (maintained 100% SLA adherence during first 6 months).
* Proposed and implemented automation improvements in job monitoring processes, reducing manual effort and increasing the efficiency of the operations.
* Authored Standard Operating Procedures (SOPs) to support knowledge transfer and onboarding of new joiners in the production support team.
* Handled critical production incidents during off-hours with zero SLA breaches, ensuring uninterrupted business continuity and system reliability.
* Tech Stack: JCL, Mainframe utilities, Java, SQL, HTML, CSS.

**Tamil Nadu Police Cyber Crime Wing Chennai, India**

Cybersecurity Intern **Feb 2024 – Mar 2024**

* Conducted system security assessments and proposed mitigations, protecting large-scale public systems and reducing potential breaches by 30%.

**PROJECTS**

**ALGOVIZ Aug 2025**

* Developed an interactive Algorithm Visualizer web app using React.js that animates step-by-step executions of sorting and searching algorithms (Bubble Sort, Merge Sort, Quick Sort, Binary Search), featuring real-time pseudocode highlighting, dynamic controls for array size and speed, and a responsive, user-friendly interface.
* Engineered modular React components and efficient state management with hooks to deliver smooth, visually engaging algorithm walkthroughs, enhancing understanding of core computer science concepts.
* Tech Stack: React, JavaScript, CSS3, HTML, SVG/Canva.

**Advanced Intrusion Detection Framework using Autoencoder and LSTM Mar 2024**

* Developed a two-stage intrusion detection system using Autoencoder and LSTM that boosted cyber threat detection accuracy and significantly cut false positives in live network environments.
* Integrated with Flask for real-time monitoring and alerts; Tech Stack: Python, Flask, TensorFlow, scikit-learn.

**Library Book Management System using Blockchain Technology May 2023**

* Developed a decentralized library book management system using Hyperledger Fabric and smart contracts, ensuring secure, transparent, and tamper-proof transaction tracking.
* Enhanced accountability and operational efficiency with a Python backend and user-friendly frontend; Tech Stack: Hyperledger Fabric, Python, Smart Contracts, HTML, CSS, JavaScript.

**SKILLS**

* **Programming Languages:** Python, Java, C, C++, SQL, PL/SQL. **Databases:** MySQL, MongoDB
* **Machine Learning & Data Science:** TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, Matplotlib
* **Web & Backend Development:** Flask, Node.js, Express.js, REST APIs, Django, React
* **Other Tools:** AWS (basic), Git, GitHub, Linux, Mainframe,Excel, Google Sheets, Word