

# Johan Lakshmanan

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## EDUCATION

<b>University of Massachusetts, Amherst</b> <i>Bachelor of Science in Computer Science — 3.6 (Deans List)</i>	Amherst, MA Aug. 2023 – May 2026
• Relevant Coursework: Data Structures, Algorithms, Software Engineering, Machine Learning, Search Engines	

## EXPERIENCE

<b>Quantitative Research Intern</b> <i>Fidelity Investments</i>	Jun. 2025 – Aug. 2025 Boston, MA
• Piloted a model-driven trade router, scaling trade volume by <b>30%</b> and saving <b>\$5M+</b> for <b>300+</b> hedge funds.	
<b>Software Engineering Intern</b> <i>Waters Corporation</i>	May 2024 – Aug. 2024 Milford, MA
• Engineered a full-stack automated renewal quote system using <b>Python</b> , <b>RESTful APIs</b> , and a responsive UI, reducing manual workload by <b>100+ hours monthly</b> , streamlining sales operations.	
<b>Software Engineer</b> <i>Build UMass</i>	Feb. 2024 – May. 2024 Amherst, MA
• Led full-stack development of a consulting platform using <b>MERN stack</b> , deployed on <b>Dockerized AWS EC2</b> with <b>Nginx</b> load balancing and <b>GitHub Actions CI/CD</b> pipelines for production scalability.	
<b>Embedded Systems Researcher</b> <i>MIT Lincoln Laboratory</i>	May 2021 – Aug. 2022 Cambridge, MA
• Built a secure bootloader for Stellaris microcontrollers ( <b>C/Assembly</b> ) and designed penetration testing frameworks ( <b>Python/SQL</b> ), patching <b>16+ vulnerabilities</b> and earning <b>1st place</b> in the MITLL Cybersecurity Challenge.	
• Deployed a static website using Hugo on AWS, leveraging a VPC to improve uptime by <b>15%</b> .	

## PROJECTS

<b>AI Bitcoin Sentiment Platform</b>   <i>Python, FastAPI, SQLAlchemy, NLP, Docker</i>	Aug. 2025 – Present
• Built a modular <b>ETL</b> and <b>ingestion</b> pipeline aggregating cryptocurrency news, Reddit, and price feeds, reducing end-to-end processing latency by <b>40%</b> under concurrent workloads.	
<b>Dusty</b>   <i>Python - OpenCV, Keras, Scikit</i>	Sep. 2022 – Jan. 2023
• Built CNN plant disease detector ( <b>20K images</b> ) with <b>82% accuracy</b> and F1=81% using <b>Keras/OpenCV</b> .	
<b>Team Unlimited Robotics</b>   <i>Java - FTC SDK, Android Studio, REV Robotics</i>	Apr. 2020 – Sep. 2023
• Led <b>15-member</b> robotics team to <b>MA State Championship</b> , securing <b>Schneider Electric</b> sponsorship.	

## SKILLS

**Languages:** Java, Python, C/C++, JavaScript (Node.js), TypeScript, SQL, HTML/CSS  
**Cloud:** AWS (EC2, EKS), Google Cloud, Docker, Kubernetes, Redis, Nginx, Terraform, Jenkins, Azure  
**Frameworks:** React, Node, Express, Django, FastAPI, JUnit, Pandas, Material-UI, RESTful APIs  
**Technologies:** Git, VS Code, Visual Studio, Linux, VMware, JIRA, Power BI, GitHub Actions (CI/CD)