

Hoang (Joe) Do

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EDUCATION

Virginia Tech

B.S. in Computational Modeling and Data Analytics, Minor in Computer Science

Concentration: Cybersecurity and Cryptography

Blacksburg, VA

Aug. 2023 – May 2027

EXPERIENCE

AI Integration & Full-Stack Software Engineering Intern

May 2025 – July 2025

Centennial Technologies

Leesburg, VA

- Designed and implemented an automation workflow for XFA/PDF manipulation using Azure and Python, reducing manual form-filling effort by 95% and accelerating enterprise document processing.
- Architected full-stack solutions (backend, frontend, databases, AI services) that transformed raw form data into API-ready JSON and relational formats, improving cross-platform accessibility completely.
- Outlined UI/UX by designing wireframes and implementing a modern frontend stack (React, TypeScript, Tailwind) with seamless integration to agentic AI-powered backend services and RESTful APIs, enabling autonomous document processing and real-time enterprise data flows.

Splunk Dashboard Data Analytics Developer

Aug 2024 – Present

Virginia Tech Division of Information Technology

Blacksburg, VA

- Built analytical dashboards for various projects using Splunk's Search Processing Language to monitor various metrics such as security events and error logs across the Virginia Tech systems.
- Developed a smart alert system on Splunk, identifying over 100 faulty system errors, security breaches, or other suspicious activities daily across the entire university's IT infrastructure.
- Collaborated with multiple university departments to solve business problems by developing analytical dashboards and leveraging key metrics to drive actionable insights.

Lead Software Engineering Undergraduate Researcher

Aug 2024 – Present

GrayUR Phased Array Microphonics

Blacksburg, VA

- Developed a real-time audio processing system for the Phased Array Microphonics project using Python and Qt, enabling faster analysis of acoustic signals for experimental research.
- Designed a scalable GUI application with PySide6, supporting real-time audio visualization and recording, and ensuring extensibility for future research modules.
- Designed and conducted testing for signal manipulation algorithms that improved data extraction and provided clearer insights for research teams.

PROJECTS

SkillThread | *Python, Natural Language Processing (NLP), Next, FastAPI, Vercel*

March 2025 – May 2025

- Designed and deployed a full-stack resume scanning platform with a Next.js frontend and FastAPI backend, enabling seamless user interaction and scalable API performance.
- Integrated AI/NLP pipelines to improve PDF parsing accuracy by 25%, enhancing keyword extraction and candidate-job matching precision.

Gigglebytes | *Python, R, Data Analytics, Statistical Methodologies*

April 2025 – April 2025

- Collaborated in a 3-member team to achieve a Top 5 finish in a national-level data competition.
- Developed a statistical ranking model in Python to evaluate real estate opportunities, equipping real companies with actionable insights on where to best establish office complexes, and improving site selection accuracy by 50%.
- Generated visual reports and presented findings with clear metric explanations, enabling stakeholders to make data-driven decisions.

TECHNICAL SKILLS

Languages: Java, JavaScript, Python, C, C#, HTML/CSS, R

Frameworks/Libraries: Next, React, Node, Tailwind, Flask, FastAPI, Django, JUnit, Scikit-learn, Pandas, numPy, easyOCR

Developer Tools: Git, Docker, Azure, VS Code, Eclipse, AWS, Vercel, Figma