

Peter Do

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EDUCATION

Virginia Tech	Blacksburg, Virginia
<i>B.S. in Computer Science, Minor in Mathematics</i>	<i>Graduated, December 2025</i>
<i>Master of Engineering in Computer Science and Applications</i>	<i>Expected Graduation, December 2026</i>
Graduate GPA: 3.95/4.00 Undergraduate GPA: 3.63/4.00 Coursework: Data Structures & Algorithms, Mobile Software Development (iOS), Introduction to AI, Computer Systems, AI Tools, Parallel Computation, Network Architecture and Protocols	

EXPERIENCE

Capital One	McLean, Virginia
<i>Software Engineering Intern</i>	<i>June 2026 - August 2026</i>
- Developed an end-to-end physical card kiosk prototype using Kotlin, Jetpack Compose, and REST APIs, integrating mobile card issuance and replacement workflows with an Exchange API backend and the OneKiosk hardware platform. - Built backend microservices for account authentication, card selection, and data management, supporting an initiative projected to increase Day 0 card activation by 55%+ and reduce \$11.7M in annual shipping costs.	
Collins Aerospace (RTX)	Remote
<i>Engineering Application Development Intern</i>	<i>June 2025 - May 2026</i>
- Architected a MongoDB automation platform using Crossplane XRDs, Kubernetes, Helm charts, and Argo CD GitOps, developing end-to-end CI/CD pipelines that accelerated database provisioning for internal teams by 80%. - Deployed a Docker-based Borg backup service via Puppet, running daily multi-threaded MySQL dumps to Borg, cutting the backup window from 2.5 hours to 30 minutes and enabling rapid restores for critical databases. - Executed the migration of enterprise-scale AWS infrastructure from a deprecated legacy environment to new cloud environments, establishing standardized migration patterns and documentation to streamline future application transitions.	
Knowmadics	Remote
<i>Software Engineering & Product Management Intern</i>	<i>May 2024 - May 2025</i>
- Built internal automation tools that streamlined software version releases, reducing deployment time by 25%. - Produced detailed requirement documents for 2 flagship products by conducting weekly stakeholder interviews across international teams, resulting in reduced specification ambiguity and accelerated development cycles. - Designed and implemented automated REST API testing pipelines using Postman, validating 100+ endpoints and cutting production defects by 30% through C#/.NET backend enhancements. - Created 20+ Angular.js components including data tables and dashboards for improved user experience. - Led end-to-end QA testing for web and mobile applications across 6 Agile sprints, creating structured test plans and managing bug lifecycles in Jira and Azure Boards to reduce average issue resolution time by 20%.	
Nora AI	Remote
<i>Software Engineering Intern</i>	<i>June 2024 - August 2024</i>
Developed key backend features for an AI mock-interviewer platform using ASP.NET Core, fine-tuning OpenAI GPT models to achieve 90% accuracy in candidate performance evaluation across 100+ interview sessions.	

PROJECTS

Multi-hit Carcinogenic Mutation Detection Parallelization C, OpenMP, Python
Optimized a 2-hit carcinogenic mutation detection algorithm by redesigning sparse genomic matrices into a dense, patient-indexed structure and implementing OpenMP thread-level parallelism, reducing CPU runtime by 65%.
GreenThreads React, Bootstrap, Flask, Selenium, BeautifulSoup4, DynamoDB, AWS Cognito
- Built a full-stack web application that promotes eco-friendly shopping by offering secondhand alternatives to fast fashion. - Implemented web scraping functionality through BeautifulSoup4, Selenium, and the Google Shopping API in Python.
Custom Neural Network + Visualization NumPy, Python, Next.js, Tailwind, Docker, AWS ECS
- Developed a customizable neural network from scratch implementing feedforward and backpropagation algorithms. - Achieved 97% accuracy with a 4-layer architecture on identifying written numbers, showcasing effective learning.

SKILLS

Programming: Python, JavaScript, Java, C#, TypeScript, Go/Golang, PowerShell, Dart, Swift, Kotlin, C, C++, SQL
Frameworks/Databases: React.js, Angular.js, Next.js, Flutter, Flask, Spring Boot, MongoDB, Express.js, PostgreSQL
Tools: Amazon Web Services, Kubernetes, Crossplane, Postman, PyTorch, Jira, Docker, Azure, Pandas, NumPy, Git, Jenkins