Timothy Vu

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EDUCATION

Cornell University Ithaca, NY
Master of Engineering in Computer Science *Expected December 2024*

Cornell University Ithaca, NY
Bachelor of Science in Computer Science *May 2024*

EXPERIENCE

Microsoft May 2023 – July 2023
Site Reliability Engineer Intern *Reston, VA*
- Automated renewal and rotation for 90+ certificates in Azure Key Vault, eliminating manual intervention
- Transitioned certificates from thumbprint-based authentication to more secure subject name and issuer method
- Implemented an efficient auto distribution system for certificates, enhancing scalability and availability by automatically deploying them to 10,000 Azure service nodes

Microsoft May 2022 – August 2022
Site Reliability Engineer Intern *Reston, VA*
- Created a real-time centralized metrics dashboard tracking latency, availability, and utilization of government cloud deployment tool, enabling data driven decision making
- Replaced manual log checks with automated email notifications, reducing incident resolution time by 50%
- Presented actionable insights on key performance indicators based on dashboard data to senior management

U.S. Department of Defense June 2021 – August 2021
Software Engineer Intern *Springfield, VA*
- Upgraded department SharePoint page to enhance appearance and functionality using JavaScript for 100+ personnel while serving as principal SharePoint administrator
- Improved access request workflow for SharePoint permissions, reducing waiting time and manual approvals

Modus Create Inc May 2020 – August 2020
Software Engineer Intern *Reston, VA*
- Developed Amazon Web Services tool automating temporary third-party remote access to internal VMs
- Built a demo website to showcase Vue 3 and Ionic 5 for presentation to potential Fortune 500 clients
- Authored technical tutorials on topics such as AWS, Vue, and JavaScript for company blog and Medium

MILITARY EXPERIENCE

U.S. Army Reserve Cyber Protection Brigade May 2024 - Present
Cyber Warfare Officer (17A) *Adelphi, MD*

PROJECTS

AWS Instant Tunnel | *JavaScript, Python, Lambda, DynamoDB*
- Developed an AWS tool automating temporary SSH access to EC2 instances
- Wrote AWS Lambda functions for user authentication, EC2 instance management, and database operations
- Used DynamoDB to store temporary permission information

Twutor | *HTML/CSS, Node.js, Express.js, MongoDB*
- Built a tutoring networking site which matches students and tutors based on expertise
- Utilizes MongoDB to store user data and Express.js/Node.js backend
- Employs Bootstrap CSS and Handlebars for dynamic rendering

SKILLS

Languages: Java, Python, C, C#, SQL, JavaScript, HTML/CSS
Developer Tools: Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse
Certifications: AWS Certified Developer Associate, AWS Certified Solutions Architect Associate, Microsoft Azure Fundamentals, CompTIA Security+, CompTIA Network+