

# TUAN CUONG NGO

Fairfax, VA

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## Education

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### VIRGINIA TECH - Blacksburg, VA

- B.S in Computer Science | Graduated 2022
- **Cumulative GPA: 3.9 / 4.0**
- **Relevant Courses:** Data Structures & Algorithms, Software Design & Data Structures, Software Engineering Capstone, Mobile Software Development
- **Programming Skills & Technologies:** Java, Python, Linux, Git, HTML, Bootstrap, CSS, JavaScript, AWS, Node.js, Express, MongoDB

## Projects

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### HeapSort with BufferPool (Java)

- Follow **object-oriented programming** to create **BufferPool** using **doubly linked list data structure**.
- Implement the external **sorting algorithm HeapSort** to organize a database of records on disk.
- Reduce total running time of HeapSort through integration with **BufferPool** to minimize disk access.
- Increase locality of BufferPool by implementing **Least-Recently-Used** caching scheme.

### FitLog WebApp (MongoDB, Express, React, Node.js)

- Work in an **Agile** team of 3 to develop a **MERN** stack fitness web app that allows users to track gym progress.
- Implement **JavaScript backend** with **EJS** templating to combine with **HTML and Bootstrap** for efficient front-end rendering with back-end data.
- Utilize tools such as **AWS EC2** to host live WebApp, **Git** for version control, and **Jira** for project management, to follow best development practices.

## Work Experience

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### U.S News Associate Software Engineer (Devops)

August 2022 – Present

- Create **Python**-based Lambda functions to monitor and detect application issues to swiftly notify stakeholders.
- Execute server and application migrations to the **Amazon Web Services (AWS)** cloud using **AWS Application Migration Service**.
- Manage and maintain various services on **AWS**, such as EC2, SNS, IAM roles, and Secrets Manager.
- Configure **CloudFormation** templates and **CI/CD pipelines** to deploy EC2 servers and other AWS services.

### Virginia Tech Computer Science Ambassador

August 2021 – May 2022

- Represent the **Virginia Tech Computer Science Department** on a **team** of Student Ambassadors.
- Organize and facilitate student information sessions, career fairs, and other departmental events.
- Provide feedback and insight from the student perspective at Departmental Faculty meetings.

### Computer Science Teaching Assistant

August 2020 – December 2020

- Conduct office hours to answer course concept questions in various topics, including problem solving techniques, **Java & Python** programming, **software development** process, databases, and cloud computing.
- Assist professors in delivering lectures and facilitating active group discussions.
- Grade and provide individualized feedback on student assignments to ensure comprehension and progress.