Andrew Tran

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EDUCATION

Virginia Polytechnic Institute and State University (Virginia Tech) | *Blacksburg, VA* **Spring 2024**
B.S., Computer Science | Minor: Mathematics *Cumulative* GPA: 4.00 / 4.00 | *In-Major* GPA: 4.00 / 4.00

Relevant Courses: Data Structures and Algorithms (Java), Software Design and Data Structures (Java), Computer Organization I/II (C and Assembly), Android Mobile Software Development (Kotlin), Data Analytics and Visualization (Python), Intro to Problem Solving in CS (Python), Intro to Python, Intro to Formal Languages and Automata Theory, Cloud Computing: Infrastructure and Services (NVCC)

SKILLS

Java, Python, C, Kotlin, HTML, CSS, JavaScript / TypeScript, MongoDB, Express, Node.js, React.js, Angular (Limited), R, x86-64 and RISC-V Assembly, Git, MatLab, Visual Studio Code, Eclipse, jGRASP, Git Bash, Linux Terminal, Windows OS, Microsoft Office, MatLab, SOLIDWORKS, Qualcomm Wireless Academy: Fundamentals of Cellular Communication and 5G Program Certification

EXPERIENCE & PROJECTS

Zeta Associates Inc. Internship | *Fairfax, VA* **May 2022 – August 2022**
Software Developer Intern

- Developed a basic understanding of Kubernetes Clusters and Linux Containerization.
- Researched and implemented the newest applications of Unikernels, a specialized, single-address space machine image created by using only required OS libraries to reduce file size and increase performance (selective focus on distributions such as Unikraft, Nanos/NanoVMs, HermitCore, and MirageOS).
- Designed a containerized DSP Spectrogram Application (with audio-processing functionality) on a Kubernetes Cluster using Three.js, a JavaScript Library / API used for rendering 3D computer graphics on Internet browsers.

Undergraduate Research Assistant | *Blacksburg, VA* **August 2022 – January 2023**

- Researched into the topic of Data Freshness and Age of Information Optimization, a method focused on utilizing non-linear functions to analyze and optimize data network packet transfer. Beneficial towards increasing accuracy of data collection and visualization.

Undergraduate Teaching Assistant | *Blacksburg, VA* **January 2022 – Present**

- **CS 3714 (Spring 2023):** Developing mobile applications on the Android platform in the Kotlin Programming Language with emphasis on GUI, Model-View-ViewModel Design Pattern, Fragments, Navigation, Coroutines, Persistence and Internet, Services, Background Receivers, Location and Sensors, and Touch & Graphics.
- **CS 2114 (Fall 2022):** Focusing on Java paradigms, basic OOP principles, and applying data structures such as Stacks, Queues, LinkedLists, ArrayLists, and Binary Search Trees.
- **CS 1064 (Spring 2022):** Introducing the Python programming language's concepts: variables / types, functions, lists, sets, dictionaries, tuples, file I/O, simple web-based GUIs, basic OOP – classes, objects, and methods, etc.

Graph Theory Cycle Detection Program | *Blacksburg, VA* **April 2022**

- Applies complex Graph Theory concepts such as DFS (Depth-First Search) to detect cycles in undirected graphs.
- User enters and records the graph's vertex and edge data with the program outputting graph cycle results.
- Applications in CPU/Parallel-Computing Deadlocking and Global-Position Systems (GPS).

HONORS & EXTRACURRICULARS

VT Dean's List, Long Nguyen and Kimmy Duong Foundation Scholarship, Lockheed Martin STEM Scholar, AWS In-Communities Scholar
Society of Asian Scientists and Engineers (SASE), Vietnamese Student Association (VSA), Google Developer Student Club (GDSC), Galipatia Academic Living Learning Community (LLC)