


# KHANH HOANG

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## EDUCATION

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### Dickinson College

Bachelor of Science in Computer Science

GPA: 4.00/4.00

**Relevant Courses:** Analysis of Algorithms, Programming Language Structures, Artificial Intelligence, Computer Network, Computability and Complexity, Data Structure and Algorithms, Computing Abstractions, Cyber and Information Security

- **Phi Theta Kappa scholarship:** scholarship for transfer student with excellent academic standing

Carlisle, PA, U.S.

Expected May 2022

### Montgomery College

Associate of Arts in Computer Science

GPA: 3.96/4.00, Major GPA: 4.00/4.00

- **Dean's List:** For all semesters
- **Second Place** at 2019 STEM Student Research Conference
- Member at **NASA Swarmathon Team:** Developing robots (swarmies) to work together searching and collecting cubes by using Robot Operating System, C++, Unix and Arduino for the hardware.

Rockville, MD, U.S.

Spring 2018 – Spring 2020

## EXPERIENCES

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### RR Donnelley

Information Technology Intern (Perl, Python, SVN, Docbridge, XML, CentOS)

- Write Perl and Python scripts that convert input data to journal files that can be used in the printing process
- Perform quality assurance process by comparing multiple pdf files using Docbridge
- Debug and refactor scripts as part of maintenance process so that future developers can easily integrate into printing process

Thurmont, MD, U.S.

June 2021 – Now

### National Institute of Standards and Technology (NIST)

Guest Researcher (Python, Jupyter Notebook, Gitlab)

- Analyzed and developed routines to process Molecular Dynamic (MD) data and stored data in created data structure for coarse-graining and visualizing processes using Python
- Built data structures to store molecular information and calculated missing information to fulfill input data
- Developed algorithms to group elements based on the given requirements so molecules can be better visualized

Gaithersburg, MD, U.S.

Jan 2020 – Aug 2020

### Ackerman Learning Center at Montgomery College

Tutor (Java, Python, C++, C)

- Tutored students in C++, Java, and Python, explaining basic concepts like data structures and object-oriented programming (OOP), as well as assisting them with homework.

Rockville, MD, U.S.

Feb 2019 – Dec 2019

## ACTIVITIES & PROJECTS

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### APS March Meeting 2021, Contributing Author [\[link\]](#)

As part of my work as guest researcher at NIST, this is a library to automate the conversion of AA to CG representations and have designed an input-output framework which aims at providing reproducibility.

### Personal Portfolio Website (CSS, HTML, JavaScript, Swiper) [\[link\]](#)

My personal portfolio website, built with CSS, HTML, JavaScript, and third-party tools and frameworks like Swiper.

### Battleship Game (Java, JavaFX, TCP/IP protocols) [\[link\]](#)

A simulator of battleship game that let users play on GUI built by JavaFX and communicate with server using TCP/IP protocols.

### Book Library (Java, JavaFX, Oracle Database) [\[link\]](#)

Worked with three partners to build software that managed materials for computer science courses at Montgomery College.

**Certificate:** Oracle Certified Foundation Associate in Java, **Oracle**

## LANGUAGES & TECHNOLOGIES

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**Programming Language:** Java, Python (proficient), Bash, JavaScript, C++, Perl, C (prior experience)

**Framework/Tool:** Docker, Git, GitHub, Django, SVN, Ubuntu, VirtualBox, Bootstrap