

# TIMOTHY WU

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## EDUCATION

**B.S. in Computer Science and Minor in Mathematics** - Blacksburg, VA

Virginia Polytechnic Institute and State University

- GPA: 4.00 / 4.00

August 2020 –  
May 2023

## CERTIFICATIONS

**Certified Kubernetes Application Developer** – Issued by The Linux Foundation

July 2022

**Certified GitLab Associate** – Issued by GitLab

May 2022

## SKILLS

- Knowledge of working and collaborating with Git and Jira
- Programming Languages: Python, Java, C, Go, MATLAB, R
- Tools and Technologies: Kubernetes, Docker, SQL
- Linux-based environments for software development

## RELEVANT COURSEWORK

- Computer Systems
- Data Analytics & Visualization
- Machine Learning
- Systems & Networking Capstone

## EXPERIENCE

**AI/Machine Learning Research Engineer at Lockheed Martin** - Herndon, VA

June 2023 –  
Present

- Researching prompt engineering and finetuning methods to improve the performance of open-source large language models to better decompose specific text.
- Working on the implementation of a large language model to replace the need for five different natural language processing models.
- Utilizing Python Flask to create accessible endpoints to the large language model

**NSF Undergraduate Researcher at the InfoVis Lab @ Virginia Tech** - Blacksburg, VA

February 2022 –  
May 2023

- Streamlined the team's Jupyter Notebook to allow easier user access for adding custom dimension reduction algorithms and customizing algorithm parameters
- Implemented image plot points for graphs using external Python image processing libraries
- Research Work: <https://www.github.com/TomWoah123/AndromedaJupyter>

**Software Engineer Intern at CACI International** - Ashburn, VA

May 2022 –  
August 2022

- Designed a landing page web application using ReactJS and GatsbyJS technologies
- Configured GitLab CI pipelines to build the web application using Docker and deploy to AWS Elastic Container Registry and GitLab Pages
- Created dashboards using Power BI to better visualize incident and management data
- Served as the scrum master managing eleven other interns working in an Agile environment with bi-weekly sprints

**Cloud Engineer Intern at Zeta Associates Incorporated** - Fairfax, VA

May 2021 –  
August 2021

- Designed a reliable failover system that would migrate stateful resources across Kubernetes Clusters using Velero and MinIO
- Programmed shell scripts to automate the migration process based on Prometheus metrics
- Collaborated with two other interns to deploy, network, migrate, and monitor full-stack applications across a network of Kubernetes clusters

## PROJECTS

**HomeMakAR** – 1<sup>st</sup> Place Capstone Prize Winner

January 2023 –  
May 2023

- Designed a NextJS application to display apartment data with Augmented Reality
- Utilized Selenium and SQLAlchemy for webscraping and database manipulation
- Project Link: <https://www.homemakar.com>