

Matthew A. J. Trimble

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EDUCATION

Virginia Polytechnic Institute Honors College

Bachelor of Science in Computer Science

GPA: 3.58/4.00, Dean's List with Distinction

Blacksburg, Virginia

Expected Graduation, May 2027

EXPERIENCE

Data Analysis Intern

Tysons, Virginia

Morphworks

June 2024 – Aug 2024

- Utilized APIs to feed real-time data into Aerospike's database environment to construct no-SQL database use cases
- Constructed prototype Aerospike database to test use cases for FAA and Army Corps of Engineers (ACOE) customers
- Constructed and revamped PowerBI dashboards to track the progression of compliance standards and data analysis
- Leveraged multiple APIs to assess flight and geospatial data for efficient solutions for FAA & ACOE respectively

Engineering Intern

Fairfax, Virginia

DZYNE Technologies

May 2023 – Aug 2023

- Created Python and Java scripts to enable MAVLink drone software to utilize real-world data for realistic simulation
- Assessed new technologies, materials, components, and processes to enhance the marketability of company's drones
- Incorporated design recommendations from customers or managers to deliver best possible customer experience
- Developed proposals to address the government's request for capabilities and requirements via drone technologies

PROJECTS

DevCoach AI Teacher for Software Engineering Students

Blacksburg, Virginia

VT Research Assistant

Aug 2024 - Current

- Developed and upgraded frontend and backend aspects of OpenAI-driven program to teach SDLC concepts
- Generated a user interface using HTML, CSS, and JS connected to a backend constructed in Java/Python
- Used LLM to aid students in improving their understanding of SDLC through generative AI

AutoPyDep Python Library Release Predictions Research Assistant

Blacksburg, Virginia

VT Research Assistant

Jan 2024 - May 2024

- Assessed and processed structured and unstructured data to provide the most usable form for AI/ ML algorithms
- Built an ML algorithm using Python and NLP to model predictions of updates in soon-to-be-released Python libraries
- Generated a graph structure for an ML algorithm to predict trends in next-generation library releases

Aerospike Rapid Prototyping

Tysons, Virginia

Morphworks

June 2024 – Aug 2024

- Programmed APIs to convert live flight data from OpenSky API to an Aerospike database to enable visualization
- Engineered data conversions between APIs, Aerospike database, and ArcGIS to enable cohesive integration of apps
- Designed services to monitor various nodes of aerospike and to track metrics data moving through the database

Eye of Saurin

Fairfax, Virginia

DZYNE Technologies

May 2023 – Aug 2023

- Developed aerial vehicle simulations to predict how changes to the payload affect a vehicle's performance
- Assisted project team with coding projects and conducting technical meetings to support DEVSECOPS efforts
- Coordinated proposal efforts to support company's pursuit of government-related solicitations

ACTIVITIES AND LEADERSHIP

Kappa League Vice President

Alexandria, Virginia

Kappa Alpha Psi

Aug 2021 – June 2023

- Orchestrated plans and organized events for members to help them discover new areas of interest
- Enabled all active members of the organization to enjoy engaging activities with limited funding and resources
- Improved participation in leadership/citizenship program by 30% by adding structure to schedules and routines

SKILLS

Programming: Java, Python, C, HTML, CSS, C++, React, MATLAB

Tools: Linux, Aerospike, Azure, AWS, Microsoft Visual Studio, Jupyter Notebook, Github, PowerBI, ArcGIS

Certifications: Fusion 360 Certified