

# Kashaina Nucum

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## OBJECTIVE

Seeking a full-time position in AI/Machine Learning, Data Science, or Software Engineering beginning around August 2026

## EDUCATION

### **Master of Science in Computer Science**

Tennessee Technological University, Cookeville, TN  
Concentration: Data Science and Artificial Intelligence

Expected Graduation Date: May 2026  
GPA: 4.0

### **Bachelor of Science in Computer Science**

Tennessee Technological University, Cookeville, TN  
Concentration: Data Science and Artificial Intelligence

May 2025  
GPA: 4.0  
Minors: Social Science, Honors

## WORK EXPERIENCE

### **AI/ML Intern, ARCS Aviation, Cookeville, TN**

- Implemented YOLO and ResNet models and designed a hybrid pipeline with modular multi-head classification using PyTorch for object detection and image classification in augmented reality applications

Jun. 2025 – Aug. 2025

### **Student Trainee, Naval Surface Warfare Center Dahlgren Division, Dahlgren, VA**

- Applied machine learning techniques and developed analytic tools using PyTorch and MATLAB to improve maritime radar performance and interpret results

Jun. 2024 – Aug. 2024

### **Software Development Intern, CGI, Chattanooga, TN**

- Developed features for a workflow web application using C# and JavaScript/HTML/CSS within ASP.NET MVC pattern
- Rotated roles including Developer, Scrum Master, and QA within an Agile environment to support team delivery

Jun. 2023 – Jul. 2023

### **Software Development Intern, Statheros, Knoxville, TN (Remote)**

- Built a military defense microservice using Rust, RabbitMQ, and Docker for geolocation logic

May 2022 – Aug. 2022

### **Undergraduate Teaching Assistant, Tennessee Tech Department of Computer Science, Cookeville, TN**

Aug. 2022 – Dec. 2023

## PROJECTS AND AWARDS

### **Comparative Analysis of the Reliability of Explainable AI (XAI) Techniques in Visual Paddy Disease Classification**

- Analyzed CNN-based paddy disease multi-class classification with XAI, achieving up to 98.46% accuracy. Compared visual performance of three XAI techniques by evaluating over 450 attribution maps for interpretability to determine the best one

### **Predicting Length of Stay for Hospital Management**

- Awarded first place at Research and Creative Inquiry Day: Computer Science - Undergraduate Division
- Performed extensive exploratory data analysis and data preprocessing on a 318,000+ row hospital dataset to support length of stay prediction with ML models developed by three other team members, placing in the top 1% of almost 20,000 participants

### **AI-Powered Tile Production Analytics Dashboard – Portobello Hackathon**

- Competed in a 24-hour hackathon with a team and awarded Best Overall and Most Impact
- Trained a Random Forest model to predict material volume and required thresholds for remaining tile production stages
- Co-designed an interactive dashboard using HTML, CSS, and JavaScript to display real-time AI predictions and data analytics

## SKILLS

**Programming Languages:** Python, R, MySQL, C++, Java, JavaScript, Rust, C#, HTML, CSS, Bash, Dart, MATLAB

**Machine Learning Libraries (Python):** TensorFlow/Keras, PyTorch, Scikit-Learn, Matplotlib, NumPy, Seaborn, Pandas, XGBoost

**Tools and Frameworks:** Git, Docker, VirtualBox, MongoDB, RabbitMQ, Flutter, MPI + Kokkos, Scrum, React Native, Expo Go

## HONORS

### **AI Corps Scholarship**

- Awarded to a small cohort of dedicated students passionate in data science and artificial intelligence to provide financial and academic assistance for both an undergraduate degree and a master's degree
- Collaborate with a cohort of students on various educational, service, and research activities to broaden our knowledge and promote data science and artificial intelligence throughout the field and community

Sep. 2023

### **Derryberry Award Finalist**

- Selected as one of three finalists for the university's most prestigious award honoring exceptional leadership and integrity

Apr. 2025

## ORGANIZATION AND LEADERSHIP

**President, Data Science League (DSL)**

Apr. 2025 – Present

**Senator, Speaker Pro Tempore, Student Government Association (SGA)**

Aug. 2023 – Present

**Student Ambassador, College of Engineering**

Aug. 2022 – Present

**President, Association for Computer Machinery – Women in Computing (ACM-W)**

May 2022 – Dec. 2023