Chris Dollo

dollochrisdavid@gmail.com | linkedin.com/in/chris-d-951953234/

EDUCATION

University of Maryland, Baltimore County   *Baltimore, MD*
Bachelor of Computer Science, GPA: 3.89/4.0   **Expected Graduation: December 2025**
Relevant Coursework: Data Structures and Algorithms, Intro to AI, intro to ML, Software Engineering

RESEARCH EXPERIENCE

Research Assistant | UMBC Sensorimotor Control Laboratory   **Jan 2024 - Present**

- Preprocessed and extracted key features from extensive EMG datasets, utilizing linear interpolation to enhance data continuity and resolution.
- Designed and implemented SVM, CNN, and KNN models to classify 7 hand gesture categories, achieving a classification accuracy of 92%.
- Developed a computer vision algorithm using OpenCV and MediaPipe Python libraries to accurately identify 60 distinct hand gestures.

PROFESSSIONAL EXPERIENCE

Personal Tutor for ROTC students | UMBCDean of Natural Mathematical Sciences   **August 2023 - Present**

- Lead 5+ one-on-one tutoring sessions per week with ROTC students focusing on Algebra I through Calculus II
- Helped 7 ROTC students improve their grades by an average of 15% by developing personalized study schedules and providing studying resources

Teaching Assistant for Calculus I | UMBC Department of Mathematics and Statistics   **August 2023 - May 2024**

- Led 2 weekly discussion sessions for 2 classes of 30 students each, improving understanding of Calculus I concept
- Graded and recorded grades for 500+ quizzes, ensuring timely feedback on the academic progress of each student
- Conducted 2 review sessions per exam, resulting in a 7% increase in students test score
- Maintained 100% attendance tracking for review sessions to monitor and encourage student engagement.

PERSONAL PROJECTS

Text Recognition | *Python, Machine Learning, NumPy, TensorFlow*   **July 2024**
Description: Handwritten digit recognition system

- Implemented a convolutional neural network (CNN) with 3 convolutional layers and 3 fully connected layers in Python using TensorFlow to classify handwritten digits from the MNIST dataset with an accuracy rate of 95%.
- Reduced error rate by 15% through hyperparameter tuning and regularization techniques like dropout and learning rate adjustments.

No Touch Navigation | *Python, OpenCV, MediaPipe*   **January 2025**
Description: Gesture controlled virtual mouse designed and developed a virtual mouse system using Python, OpenCV, and MediaPipe to track hand movements and gestures, enabling hands-free control of a computer.

- Provided a visual overlay on the screen to display detected gestures and cursor movement.
- Recognized gestures such as single-click, double-click, drag, right-click, and scroll using real-time hand tracking.
- Incorporated shortcut gestures such as a "thumbs-up" for opening safari and "fist" to minimize the current windows

LEADERSHIP & EXTRACURRICULAR ACTIVITIES

Building STEPS | Baltimore, MD   **June 2024 – July 2024**

- Tutored 25 high school juniors and seniors from Baltimore City high schools who aspire to go to college in math and algebra through the Building STEPS program, helping them improve their skills for college readiness.

CWIT Retreat Planning Committee | Baltimore, MD   **April 2024 – July 2024**

- Organized and facilitated icebreaker activities to foster connections among new scholars, ensuring a welcoming and collaborative environment.
- Developed and delivered presentation slides on the role of male scholars in CWIT, highlighting academic and professional expectations of the scholarship program.

AWARDS AND HONORS

- **Academic Awards:** President's List (4 semesters), Dean's List (2 semesters)
- **Scholarships**: UMBC Merit Scholar, Northrop Grumman Cyber Scholar

SKILLS

Languages: Python, C/C++, HTML/CSS, JavaScript, Java
Technologies/Frameworks: Linux, Git/GitHub, MATLAB, NumPy, Scikit-learn, PyTorch, Matplotlib, Flask