

# Kyla Perkinson

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## EDUCATION

### University of Maryland, College Park

Bachelor of Science, Computer Science

Concentration in Machine Learning, Minors in Statistics and General Business

Expected May 2024

GPA: 3.90

## TECHNICAL SKILLS

Languages: Python, Java, OCaml, R, Ruby, MATLAB, C, JavaScript, LaTeX

Tools/Frameworks: Git, GitHub/GitLab, Eclipse IDE, Agile, Jupyter Notebook

## WORK EXPERIENCE

### Cybersecurity, Risk and Regulatory Intern - Cyber Defense & Engineering, PricewaterhouseCoopers June 2023 – August 2023

- Cooperated closely with a team during the implementation of a unified list of users across five databases, establishing a global identity view of 160,000 users through the deployment of Radiant Logic to enhance operational efficiency and security
- Participated in the configuration of servers across development, test, and production environments
- Conducted end-to-end functional and non-functional testing of servers, including database configurations, to ensure expected functionality

### Machine Learning Engineer Intern, Applied Research Laboratory for Intelligence and Security February 2023 – May 2023

- Coordinated with a team of researchers to modernize the document declassification process through the application of machine learning and natural language processing techniques
- Implemented topic modeling using tmtoolkit and Gensim to explore data and identify common themes within a corpus
- Engineered a program using spaCy to detect out-of-vocabulary words and entities, allowing for these terms to be flagged in a web application and enabling reviewers to manually verify their entity labels

### Software Development Intern, Easy Dynamics June 2022 – August 2022

- Contributed to the development of the Open Security Controls Assessment Language (OSCAL) by implementing features using React
- Communicated with the team through GitHub, including creating and reviewing pull requests and keeping track of progress through the sprint board
- Developed a markdown field component to incorporate into other components for markdown support
- Wrote component tests using Jest to confirm components were implemented as desired

## LEADERSHIP ROLES

### Co-President, Association for Women in Computing May 2023 – Present

- Collaborate with the other co-president to organize and facilitate weekly meetings with the executive board, ensuring effective communication and coordination of events and responsibilities
- Direct the organization and implementation of events aimed at promoting diversity and inclusion in the computer science community at the University of Maryland, including coordination with other board members, staff and faculty, and sponsors

### Undergraduate Teaching Assistant, College of Computational, Mathematical, and Natural Sciences August 2022 – Present

- Reinforce ~250 students' understanding of advanced data structures through weekly office hours and assignment feedback
- Lead 20 first-year students, discussing available resources on campus, degree requirements, and the transition to college

### Peer Mentor, College of Computational, Mathematical, and Natural Sciences August 2022 – Present

- Assist students as they set and attain academic goals by providing guidance on making graduation plans, registering for classes, and discussing course content
- Administer TerrapinStrong discussions with new students to highlight the importance of diversity and inclusion in the college

## PROJECTS

### The Use of Convolutional Neural Networks in Melanoma Detection May 2023

- Utilized PyTorch to implement a convolutional neural network for melanoma detection in mole images, achieving approximately a 90% testing accuracy and F1 score through hyperparameter tuning

### The Use of Deep Neural Networks to Determine the Authenticity of News May 2023

- Worked alongside a team to utilize BERT and a self-implemented PyTorch LSTM model to achieve a 96% testing accuracy and F1 score in fake news detection

### Data Science and Global Warming: A Closer Look at Rising Temperatures December 2022

- Applied data science techniques, including linear regression modeling, to predict future average temperatures based on the analysis of large-scale datasets on global carbon dioxide emissions