Drew Christner

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SUMMARY STATEMENT

Computer Science graduate from Barrett Honors College at Arizona State University experienced with Machine Learning, Software Engineering, and Web Development. Especially interested in Artificial Intelligence and Machine Learning research and implementation. Seeking long-term employment working with a cutting-edge team on innovative and unique projects.

EDUCATION

Arizona State University: Barrett Honors College | Bachelor of Science in Computer Science 2020 - 2024

- GPA: 3.59 - Cum Laude
- Honors Thesis: "Lettuce Nutritional Deficiency and Disease Identification with ResNet-50 and CapsNet"
- Informatics Certificate, President's Award Scholarship, 4 years Dean's List, "Engineering Projects in Community Service"

Relevant Coursework:

Social Media Mining | Foundations of Machine Learning | Data Structures and Algorithms | Software Engineering and Integration | Object Oriented Programming and Design | Human Computer Interaction | Responsive Web Design | Web Development with JavaScript and APIs | Distributed Software Development | Digital Design Fundamentals | Operating Systems

Global Tech Experience: Web Development Bootcamp | Web Development Certifications May 2023 - August 2023

- GPA: 4.0
- Certifications: "HTML & CSS Specialist," "JavaScript Specialist," "Intercultural Skills."

Center for Science, Technology, Engineering, and Math at PVHS | Diploma with Distinction 2016 - 2020

- GPA: 4.0
- National Merit Finalist, 4 years Dean's List, National Honors Society, Robotics, Technical Theater, Wrestling, CAD Intern

SKILLS

Python | Machine Learning/AI| C/C++ | C# | Visual Studio | Java | JavaScript | HTML | CSS | MATLAB | CAD

EXPERIENCE

Capsule Network Research with Dr. Lynn Robert Carter August 2023 - May 2024

Barrett Honors College | Tempe, AZ

- Implemented experimental machine learning network architecture, Capsule Network, using Python.
- Adapted architecture from the article "Dynamic Routing between Capsules" to generalize to a wider range of datasets.
- Researched mathematical foundations and programming concepts behind capsule theory and applied it to a real world problem

Machine Learning Engineer August 2023 - May 2024

Astro Seed | Tempe, AZ

- Designed, implemented, and tested a machine learning model to identify health defects in crops from images utilizing a deep convolutional neural network in Python.
- Achieved 98.5% classification accuracy for nutritional deficiencies and diseases.
- Developed a remote data pipeline for easy access to large datasets of images of crops.
- Optimized algorithmic performance by experimenting with data preprocessing and augmentation.
- Managed project timeline team collaboration through scrum agile project management framework.
- Presented product at a showcase event, earning 2nd place out of 150 other products

Electrical Impedance Tomography Research with Dr. Malena Espanol July 2022 - May 2023

Barrett Honors College | Tempe, AZ

- Created a linear algebra algorithm to convert matrices of electrical input data into images that can be used to visualize internal structure of a body which provides important insights for healthcare providers.
- Designed and constructed a prototype EIT device using Arduino which obtains electrical data from the human body to analyze internal health abnormalities.
- Improved existing EIT algorithms to increase precision and accuracy allowing them to function with less available data.

Shift Leader June 2024 - Present

Tropical Smoothie Cafe| Phoenix, AZ

- Manage a team to ensure tasks are completed efficiently, quickly, and with proper quality.
- Maintain high standards of cleanliness and customer satisfaction throughout consistently busy business hours.
- Ensure strong team morale which simultaneously upholding requirements of customers and management