### Colin Woods

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**Business Solutions | Organizational Leadership | Service Excellence**

Educated, early-career computer science/data scientist professional with experience providing the leadership and support needed to drive the achievement of key organizational business goals and objectives. Able to leverage data science and business and data analysis best practices with innovation to deliver frameworks to organize data and extract and interpret meaning to drive cost-saving/operational effectiveness. Proven strength in building and maintaining long-term, professional relationships with strategic business partners based on the effectiveness of the business solutions delivered. Excited to combine recent experience with education to provide impactful results while leading in fast-paced, dynamic business environments.

# Areas of Expertise

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| --- | --- | --- |
| * Feature Engineering & Selection * Big Data & Machine Learning * Ensemble & Meta Learning * Deep Neural Networks | * Quality Assurance & Troubleshooting * Statistical Analysis & Data Mining * Business Process Improvements * Applied Artificial Intelligence | * Strategy & Execution * Forecasting & Analysis * Natural Language Processing * Model Development & Eval |

**Technical Proficiency**

Python, C++, C, JAVA, Golang, Object Oriented Programming, Cloud ML Platforms (AWS, Azure, GCP),

Git, SQL, SQL, Server, BASH, Powershell, Python Scripting, SciKit-Learn, PyTorch,

TensorFlow, Agile, Oracle, APIs, NLP, LLMs, Android Dev, HuggingFace,

R, SAS, JavaScript, Deep Learning, Azure DevOps

**Certifications**

AWS Certified Cloud Practitioner

Microsoft Certified: Azure Data Fundamentals, Microsoft Certified: Azure AI Fundamentals

Microsoft Certified: Azure AI Engineer Associate, Microsoft Certified: Azure Fundamentals

Automation Specialist Level 1 TOSCA

Coursera: ETL and Data Pipelines with Shell, Airflow, and Kafka/Coursera: Introduction to Business Analytics with R

Server +

**Professional Experience**

**Modeling & Simulation Intern** June 2025 – Current

***Missile Defense Agency,*** *Colorado Springs, CO*

* Contributing to defense-oriented AI and ML modeling systems, working alongside military and civilian specialists in a high-security environment
* Enhancing system modularity and scalability to support integration with evolving defense technologies.
* Applying machine learning, data modeling, and simulation tools to support decision-making and gain operational insights.
* Gained experience with CUI handling protocols, secure systems, and compliance with DoD cybersecurity standards.
* Collaborated with multidisciplinary teams to develop scalable, production-ready ML solutions while adhering to string confidentiality requirements.

**TRANSITIONAL TECHNOLOGY SUPPORT TECHNICIAN** April 2024 – August 2024

***Intermountain Health,*** *Denver, CO*

* Exceled at system administration while working with Information Technology installation and setup at new Lutheran Hospital
* Oversaw network administration, ensuring hospital workstations had correct patches, network hardware, and IP setup
* Provided quality assurance, testing, and troubleshooting support across different teams at the hospital.
* Maintained and supported PC software applications on hospital computers.

**ASSOCIATE CONSULTANT** 2022 - 2023

***Sogeti,*** *Denver, CO*

* Serve as an Associate Consultant, providing wide-ranging leadership and support on the following projects:

Humana Healthcare – RGX – Business Rules Testing & DMAS – Automation Services

* Learned and synthesized knowledge of manual business rules testing to serve as a liaison for developing new automation frameworks with the Automation Services Team.
* Worked to develop skills with and become competent with TOSCA and TOSCA DI and built high-level knowledge of business rules and automation amalgamating in increased productivity.
* Communicated and coordinated with automation teams and business rules product owners on offshore manual testing.
* Proactively tracked Business Rules requirements, release management, and version control in Azure DevOps.

Humana Healthcare – DMAS – Data Management

* Practiced team leadership, providing task management and deadline setting for the offshore team, and wrote and executed complex SQL queries to mine member-related data for testing teams.
* Studied queries of gradually increasing complexity to hone personal knowledge and skillset in downtime.
* Coordinated and led offshore team by tracking test data request status and ensuring completion by deadline.
* Maintained and cataloged unique member data used for data requests and tracked the usage of Golden data.
* Oversaw and delivered synthetic data requests, helping to coordinate database refreshes, and closed data requests for internal testing teams within the Azure DevOps ticketing system.
* Notable achievements while in the position included:
  + Increased operational efficiency of the UAT and DMAS team at Humana by decreasing the turn-around time of data requests.

Banner Health – Identity and Access Management Operations Admin

* Worked with the existing IAM Ops team to help Banner with account management through Wyoming Hospital's Go-Live event, in addition to helping with incident management and ticketing during the Go-Live.
* Worked on Cerner and Microsoft AD account creation and deletion for hospital staff and provided user credentials and access as provisioned by management.

**SERVICE DESK TECHNICIAN II** 2017 - 2022

***Mountain West Farm Bureau Insurance,*** *Laramie, WY*

* Handled incident management and escalations for proprietary claims software and the Office 365 suite for offices across three states.
* Completed hardware support and operating system installation, including reimaging, and installed and provided electronic assistance to company staff.

**Education**

**Bachelor of Science, Computer Science** – University of Wyoming, Laramie, WY, (2022)

Minor: Statistics, Concentration: Big Data

**Master of Science, Artificial Intelligence and Machine Learning** – Drexel University, Philadelphia, PA, (graduation in March of 2026)

**Post-Baccalaureate Certificate,** Applied Artificial Intelligence & Machine Learning **–** Drexel University**. (**Completed, degree will be granted Summer 2025)

Graduate Project – Predicting College Matriculation Using NLP & Ensemble Learning

Technologies – Python, PyTorch, DistilBERT,, Scikit-learn

* Led a 3-fold stratified cross-validation pipeline using a hierarchical BERT model to analyze semantic signals in student essays and output probabilistic matriculation predictions.
* Designed and implemented a stacking ensemble meta-model (MetaMLP) trained on confidence scores from both models, achieving a final F1 score of 0.95 and AUC of 0.997 on test data.
* Combined NLP-derived probabilities with categorical applicant features using a Random Forest model.

Senior Design Final Project – Automated Puzzle Solver

Technologies: Python, OpenCV, TkInter, PyGame, SciPy, NumPy

* Working as a team, we used the OpenCV library in Python to create an Automated Puzzle Solver application.
* Designed the UI using PyGame for the application, including buttons for photo upload, settings, and configurations.
* Through a series of complex puzzle reading steps that store edge information and measurements in arrays, culminating in a genetic algorithm technique used to select the ideal solution, we were able to solve jigsaw puzzles of sizes well over 1000 pieces.