Chris Haleas

cmhaleas@gmail.com | (773) 606-0989 | linkedin.com/in/chris-haleas/ | chrisiu.github.io

EDUCATION

Indiana University, Luddy School of Informatics, Computing, and Engineering　　　Bloomington, IN
Master of Science in Computer Science　　　Expected May 2026

Bachelor of Science in Computer Science – Cum Laude (Top 10% of Class)　　　August 2022 – May 2025
Concentration: Artificial Intelligence | **Minor**: Data Science | **Certificate:** Entrepreneurship　　　GPA: 3.72/4.00
Honors and Awards: Hoosier Scholar Community, CSCI Student Scholarship, Dean's List
Relevant Coursework: Applied Algorithms, Data Analysis & Mining, Principles of Machine Learning, Artificial Intelligence, Product Management, Data Structures & Algorithms, Topics in AI: Trustworthy Machine Learning, Computer Vision, Statistical Inference, Linear Algebra
Student Involvement: Kappa Sigma Fraternity (Founding Member, Merchandise Chair), Sparklab Incubator (Co-Founder of StudyBuzz)

WORK EXPERIENCE

Humana | Louisville, KY　　　May 2025 – Present
AI Engineer Intern
- Developed a digital care manager to conduct wellness calls to patients with chronic conditions, reducing hospital readmission rates
- Built the backend of digital care manager with Node.js and Fastify using WebSocket for audio streaming, Twilio for call handling, OpenAI GP-4o for conversation generation, Cartesia for text-to-speech, MongoDB for data storage, and Gradio for the frontend
- Generated 100+ synthetic patient records with OpenaAI GPT-4o and stored in MongoDB to simulate real-world healthcare data
- Implemented continuous learning of digital care manager by storing call summaries, enabling the AI to personalize follow-up calls
- Awarded 1st place in Humana intern hackathon by building a full-stack tool to help Scrum Masters automate sprint progress tracking and assess team sentiment from Scrum stand-up recordings using OpenAI GPT-4o for call summarization, VADER for sentiment analysis, and an interactive Gradio frontend
- Presented AI projects to C-level executives, communicating technical details and business impact

Carnival Cruise Line | Miami, FL　　　May 2024 – May 2025
IT Sales and Guest Operations Intern
- Collaborated with the product management team on booking system modernization project, impacting 30% of the company's revenue
- Spearheaded the integration of an AI-driven cruise recommendation engine into booking system, personalizing customer experience
- Designed recommendation engine architecture using Collaborative Filtering, Content-Based Filtering, and Adaptive Ranking model
- Led vector search initiative with Microsoft consultants to create a dynamic guest booking lookup in Carnival's internal systems
- Created Agile user stories for new features using Figma and Microsoft Azure, directing the engineering team's development
- Contributed to Scrum ceremonies, including feature refinement sessions, sprint planning, and requirements gathering sessions

Lavner Education | Chicago, IL　　　June 2023 – August 2023
Information Technology Intern
- Managed software setup and technical troubleshooting for 30+ computers to ensure smooth use for students and employees
- Coordinated and supervised the activities of 30+ campers in a tech summer camp, ensuring their safety and well-being
- Provided instruction and guidance to 10 students a day on various aspects of programming and game development fundamentals

PROJECTS

Scrollos: AI Research Discovery Platform | *Python, HTML, CSS, JavaScript, Flask, MongoDB, Firebase Auth, LangChain, GPT-4*
- Developed a full-stack platform for discovering and sharing computer science research papers and materials using Flask and Python, with MongoDB for structured data storage and Firebase Authentication for profile management of users
- Integrated OpenAI GPT-4 and LangChain to summarize arXiv research papers and generate engaging short-form content
- Built a web-app with JavaScript, HTML, and CSS, featuring infinite scroll and intuitive content discovery and upload functionality

Exploring Empathy of Leading LLMs for Trustworthy ML Course & Master's Research | *Python, PyTorch, Gradio, Matplotlib, LLMs*
- Evaluated empathy in AI therapeutic responses by comparing outputs from 4 large language models (LLaMA 3.2, OpenAI GPT-4o, Claude 3.7 Sonnet, Gemini 2.5 Pro) against human psychologist responses, using 35+ anonymous survey evaluations
- Developed an empathy classifier system using BERT-base-uncased with feature-based transfer learning, achieving 0.35 MSE
- Built an interactive Gradio UI to evaluate the empathy of text input and analyzed its robustness against 10 adversarial attacks

CNNs Against Adversarial Attacks in Face Recognition for Computer Vision Course | *Python, PyTorch, Matplotlib*
- Fine-tuned 6 Convolutional Neural Networks (EfficientNetB0, ResNet-18, DenseNet121, Inception v1, Regnet X 400MF, SqueezeNet 1.1) using PyTorch and transfer learning for binary classification of real vs. altered facial images
- Engineered black-box adversarial attack pipelines (Gaussian noise, RGB color shift, black patch occlusion) to assess robustness
- Evaluated model performance using F1-scores, confusion matrices, and radar charts; identified DenseNet121 as most resilient

Content Safety Classification Model for Trustworthy Machine Learning Course | *Python, PyTorch, Streamlit, Matplotlib*
- Developed and trained an NLP model using RoBERTa architecture to classify text for content safety, achieving 84% accuracy
- Implemented a real-time Streamlit web application that integrates the trained model, allowing users to evaluate content safety
- Designed and conducted adversarial attack demonstrations to identify model vulnerabilities

NFL Trade Analysis for Data Analysis and Mining Course| *Python, pandas, scikit-learn, Seaborn, Matplotlib*
- Leveraged a Kaggle dataset to compute composite performance scores for NFL players by position using MinMax scaling of statistics
- Visualized team trends using Seaborn heatmaps and implemented a grading system to evaluate positional strengths across teams
- Trained a scikit-learn logistic regression model to predict team future improvement probability, achieving 65% accuracy

Fashion Forward for Artificial Intelligence Course | *Python, pandas, scikit-learn*
- Developed a Fashion Recommendation System, enabling users to receive clothing recommendations based on entered attributes
- Trained and compared K-Nearest Neighbors, Random Forest, and Decision Tree models on 45,000 clothing items with scikit-learn
- Evaluated recommendation accuracy by computing cosine similarity between user preferences and predicted item attributes

StudyBuzz MVP for HackTX | *Python, HTML, CSS, JavaScript, PyTorch, Node.js, React, Flask*
- Built an AI-powered web app at HackTX to generate concise lecture summaries; further developed through the Sparklab Incubator
- Trained a Longformer Encoder-Decoder model on a dataset of 6500+ books to generate accurate summaries of lecture video files
- Connected a Python backend to a React.js using Flask to create an intuitive user interface

SKILLS

Programming Languages: Python, Java, R, SQL, JavaScript, HTML, CSS

Machine Learning & AI Libraries: TensorFlow, PyTorch, scikit-learn, nltk, Hugging Face (Transformers, Datasets, Hub), OpenCV

AI Models & Architectures: BERT architectures, Longformer Encoder-Decoder, Convolutional Neural Networks (CNNs), Neural Networks, Natural Language Processing (NLP), K-Nearest Neighbors (KNN), Random Forest, Decision Trees, Large Language Models (LLMs), Logistic Regression, Linear Regression, Support Vector Classifier (SVC), Principal Component Analysis, Deep Learning, Computer Vision Models

Generative AI APIs & Tools: OpenAI GPT-4o, Claude 3.7 Sonnet, LLaMA 3.2, Google Gemini 2.5 Pro, Cartesia, LangChain, GitHub Copilot

Data Analysis & Visualization Libraries: pandas, NumPy, Matplotlib, Seaborn, Beautiful Soup

Web Development Frameworks & Libraries: React.js, Node.js, Flask, Fastify, Gradio, Streamlit

Development Tools & Platforms: Jupyter, Visual Studio Code, GitHub, Azure, Figma, Microsoft Office (Excel, PowerPoint, Word), Firebase

Databases: MongoDB, SQLite

Testing Frameworks: JUnit, pytest

Spoken Languages: English (Native), Greek (Fluent), Spanish (Conversational)