TROY KRUPINSKI

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PROFESSIONAL SUMMARY

Dynamic Graduate Artificial Intelligence and Biomedical Engineer Researcher at the University of North Texas, specializing in disease classification and deep learning. Proven expertise in Python, AI, data science and machine learning, coupled with strong analytical skills and other technical proficiencies which extend beyond AI.
First author of a significant research paper, given a podium presenting spot at ORS 2025 in disease phenotyping, showcasing my commitment to innovation and excellence in AI in biomedical applications and beyond.

EXPERIENCE

University of North Texas | Denton, TX, USA

May 2024 - Current
Graduate Artificial Intelligence and Biomedical Researcher

- Evaluated and achieved research results in artificial intelligence, machine learning & applications of those technologies into the field of biomedical engineering. Directed by Dr. Mark V. Albert.
- Developed and led projects regarding disease classification & deep-learning feature engineering.
- Achieved first authorship on my paper "Objective Classification of hemiplegic Cerebral Palsy: Objective Cluster Analysis of Whole Time Series Gait Data"
- Awarded to be an Orthopedic Research Society Member.
- Conducted my speech regarding CP Phenotyping as a Podium speaker @ ORS Phoenix, 2025.
- Implemented technologies such as TensorFlow, Scikit-learn, Pandas, Numpy, R, MATLAB, Git and SQL/Excel to achieve research findings in artificial intelligence.

Freelance | Austin, Texas

January 2019 - January 2024
Mathematics Tutor & Freelance Full-stack Web & Software Developer

- Delivered end-to-end solutions, including front-end and back-end development, database management, testing, networking, IT and client interaction.
- Communicated with clients to develop to implement effective full-stack solutions catered for the clients' business.
- Implemented React.js, MERN, MEAN, SQL, jQuery and other technologies to create full-stack applications and databases for clients.
- Improved struggling high school and early college students within areas in mathematics, science and computer science - achieving an 82% GED pass rate.

Jubilee Leadership Academy | Pasco, Washington, USA

August 2016 - December 2016
Mathematics Tutor & IT Assistant Volunteer

- Provided a safe culture for struggling students to exceed in academics without ridicule.
- Oversaw and maintained IT infrastructure, ensuring accessibility of technology resources.
- Assisted students in understanding complex math concepts and problem-solving strategies.

SKILLS

- Data Science & Analytics
- Research and analysis
- Neural networks
- OOP, Data structures & Algorithms
- Statistics & Probability theory
- Machine learning & Deep learning
- IT, Networking, Unix, Databases, PHP, Cloud computing
- Full-stack web development
- Computer programming & software development
- Microsoft Suite
- Clinical data analysis
- Python,TensorFlow, NumPy, Keras, Scikit-learn, Matplotlib, Seaborn, Pandas, PyTorch, Java, C++, jQuery, React.js, CSS, HTML, MERN, MEAN, Unix, AWS, SQL, Excel, Tableau, Git, R

AWARDS

- **Distinguished CSCE Graduate Student ('24-'25)**
- President's List, Neal Joseph Smatresk, University of North Texas
- Golden Key International Honor Society, University of North Texas
- Sigma Xi Honor Society, University of North Texas
- The National Society of Leadership, University of North Texas
- Dean's List, University of North Texas
- ACC Honors, Austin Community College
- Phi Sigma Pi National Honor Fraternity, Austin Community College

EDUCATION

Masters in Artificial Intelligence - Concentration: Biomedical Engineering
December 2025

University of North Texas, Denton, TX

GPA: 4.0

- Awarded Distinguished Graduate CSCE Student
- Member of the Biomedical AI Lab @ UNT
- Member of Sigma Xi
- Awarded AI/CS Research Certificate

Bachelor of Applied Sciences - Data Analytics, Administration, & Computer Programming

University of North Texas, Denton, TX

- GPA: 3.87
- Awarded Dean's list, President's list
- Member of Golden Key Honor Society

Masters in Advanced Data Analytics - Data Analytics
2024

University of North Texas, Denton, TX

Minors in Computer Science and Computer Engineering

University of North Texas, Denton

- Graduated with 3.93 GPA
- Awarded President's List
- Awarded Dean's List
- Awarded Sigma Xi membership

Associate of Applied Science - Computer Programming & Web Development Programming SPEC

Austin Community College, Austin, TX

- Graduated with 3.42 GPA
- Active in Tournament Organizing and leadership in the Super Smash. Bros Melee Scene in Austin, Tx
- Awarded Golden Key, NSLS membership, Phi Sigma Pi

CERTIFICATIONS

- Advanced Certificate in Full Stack Web Development, University of Texas at Austin, Austin, TX
- Certificate in Advanced Data Analytics, University of North Texas, Denton, TX
- Programming OSA Certificate, Austin Community College, Austin, TX
- CIT Certificate, Austin Community College, Austin, TX
- AI/CS Research Program Certificate, University of North Texas, Denton, TX

PUBLICATIONS

- Objective Classification of Hemiplegic Cerebral Palsy: Objective Cluster Analysis of Whole Time Series Gait Data
- Predictive Analytics in Hospital Care with Machine Learning
- Applied Artificial Intelligence in Charity Organization Donations