ANGEL CORONEL

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Education

University of Texas at El Paso
M.S. in Software Engineering, GPA: 3.83 — Dec 2024
B.S. in Computer Science, Minor in Mathematics, GPA: 3.78

City University of New York
PhD in Computer Science, GPA: 3.80 — Expected Dec 2028

Experience

Software Engineering Intern — June 2025 – Aug 2025
Northrop Grumman Corp – Space Systems Sector — Boulder, CO

- Developed a Python program to validate collected sensor readings by comparing them to reference values using physics and linear algebra principles
- Used simulations to synthetically generate trajectory measurements to enable system demonstrations
- Made customer artifacts by debugging then plotting data by correlating sensor data to mathematical vectors

Software Engineering Intern — May 2024 – Jul 2024
Northrop Grumman Corp – Space Systems Sector — Colorado Springs, CO

- Designed a Docker container that ingests logging data from 42 microservices by collaborating with full-time engineers
- Deserialized Protobuf logging data using Java to store it into an ElasticSearch database using Kafka Connect
- Integrated Kibana, a UI Tool, to query and analyze the ElasticSearch database with filters, graphs, and keywords

Computer Science Teaching Assistant — Aug 2023 – Dec 2024
Department of Computer Science at The University of Texas at El Paso — El Paso, TX

- Trained future engineers in Object-Oriented Programming and Data Structures & Algorithms courses
- Taught in Java and Python by providing instruction and guidance to 60 plus students per class

Software Engineering Intern — May 2023 – Jul 2023
Northrop Grumman Corp – Space Systems Sector — Colorado Springs, CO

- Developed radar system functionalities using Java and C++ involving backend automation and debugging
- Leveraged GitHub and Jira to exercise Agile methodologies to produce and demo multiple customer issues on site

Technical Programming Intern — May 2022 – Aug 2022
Air Force Research Lab – Minority Science and Engineering Improvement Program — Rome, NY

- Created custom scripts using C# leveraging Unity to automate decisions for dynamic aircraft status'
- Assumed lead responsibility of designing and implementing UI elements for an aircraft management system

Projects

Cybersecurity Chatbot Project – Full-Stack Web Engineering and AI/ML Engineering — Aug 2024 – Dec 2024
Python, Flask, Docker, BERT AI, OpenAI API, Weaviate Vector Database, Gradio, JSON, XML

- Related user questions to security weakness and mitigation strategies by developing a Flask app to handle a data pipeline to convert CWE and ATT&CK security datasets preprocessed from raw formats into embedded objects
- Created a vector database with OpenAI and BERT models embedding representations to compare to user queries

"Miner Fit" Gym App – Full-Stack Web Development — Jan 2024 – May 2024
Svelte, CSS, JavaScript, HTML, Google Firebase, Google Firestore Database, GitHub

- Developed a gym web-app so users can create a personalized workout routine with a custom user interface
- Managed data models on a database for data persistence with multiple authenticated users and store user data

Duck Classifier App – AI & ML Research — Jan 2022 – Dec 2023
Python, Pandas, Matplotlib, Google Colab

- Aided PhD students in creating an AI to classify duck's subspecies by testing neural network metrics and data pipeline
- The app received $20,000 in government funding to support efforts in helping local subspecies from becoming extinct

Skills

Technical: Python, Java, C++, MySQL, HTML, CSS, C#, Svelte, React, JS, Git, Agile, Scrum, AI, Kubernetes
Tools: Git, Jira, Firebase, Docker, Kafka, Protobuf, ElasticSearch DB, Kibana, Unity, Kaggle
Interpersonal: Communication, Collaboration, Decision-making, Empathetic Listening, Analytical Thinking