

## SUMMARY

A graduate from University of Texas at San Antonio with a Master's degree in Computer Science seeking full-time employment in software development and machine learning development. Proficient in Python, Flask, and machine learning frameworks with hands-on experience in building data-driven solutions and deploying scalable applications using platforms like Docker and GCP.

## EDUCATION

### Master of Science in Computer Science, Software Engineering Concentration

University of Texas at San Antonio | San Antonio, TX | Graduated: Dec 2022

### Bachelor of Science in Computer Science

The Catholic University of America | Washington, D.C. | Graduated: Dec 2018

## TECHNICAL SKILLS

- **Programming Languages:** Python, Java
- **Frameworks & Tools:** Flask, scikit-learn, pandas, numpy, TensorFlow, PyTest, JUnit
- **Platforms:** Docker, GCP (IAM, App Engine, Compute Engine), AWS Basics
- **Version Control & Collaboration:** Git, GitHub
- **Operating System:** MacOS, Windows, Linux
- **APIs & Integration:** RESTful APIs, JSON, YAML
- **Databases:** MySQL, SQLite, NoSQL (GCP Firestore)
- **Software Development:** Web Development (HTML, CSS, Bootstrap, JQuery), Agile, CI/CD Pipelines

## SOFTWARE PROJECTS

### Movie Recommendation System | *Python, Flask, Scikit-learn*

- Created a recommendation engine using **collaborative filtering** and **content-based filtering** techniques.
- Improved recommendation accuracy through **hyperparameter tuning** and **feature optimization**.
- Integrated the system into a **Flask** web application for seamless user interaction.

### Autonomous Car with Object Detection | *Python, TensorFlow, OpenCV*

- Developed an autonomous driving system using TensorFlow and OpenCV with capabilities for lane following and obstacle detection.
- Implemented Haar Classifier for STOP sign recognition, achieving 95% detection accuracy.
- Integrated CNN-based neural networks for efficient navigation, showcasing expertise in machine learning and real-time processing.

### Bite-sized Book Storyteller | *Flask, Docker, OpenAI API*

- Built a web-based chatbot for delivering concise book summaries using the **OpenAI API** and **Flask**
- Deployed the application on **GCP AppEngine** with **Docker**, ensuring scalability and reliability.

### Mental Health Diagnosis | *NLP, Python*

- Built an NLP pipeline for sentiment analysis using **TfidfVectorizer** and **nlTK**.
- Trained models (**Logistic Regression**, **SVM**, **Random Forest**) with **GridSearchCV**, achieving 92% accuracy.

### Cardiovascular Disease Prediction | *Python, numpy, pandas, Scikit-learn*

- Built a predictive model with **scikit-learn** to analyze patient data and identify stable classifiers through accuracy testing.
- Improved accuracy and reduced overfitting by applying feature engineering techniques.

### Breast Cancer Diagnosis | *Python, numpy, pandas, Scikit-learn*

- **Developed a Flask web application** integrating machine learning models, utilizing **Python**, **NumPy**, **scikit-learn**, and **TensorFlow** for backend functionality and prediction generation.
- **Created a responsive and interactive frontend** using **HTML**, **CSS**, and **Bootstrap**, ensuring seamless user experiences across devices and modern web browsers.
- **Built RESTful APIs** for secure data handling and model deployment, facilitating real-time predictions and efficient communication between the frontend and backend

### WebWeather | *Flask, GCP Firestore, Docker*

- Created a real-time weather search application using **Flask** and **Bootstrap** with **GCP Firestore** for data storage.
- Leveraged **Docker** for seamless deployment and scalability on **GCP AppEngine**.

## PROFESSIONAL EXPERIENCE

### Data Analyst - Visual Merchandising Space

Lowe's Companies, Inc, Remote | April 2023 - Present

- Analyzed business data with Excel (Pivot Tables, VLOOKUP) and GIS software to assign accurate category adjacencies, improving layout efficiency and supporting strategic decision-making with minimal oversight.
- Collaborated with project leads and cross-functional teams to deliver high-quality outputs, meeting 100% of project standards and organizational goals within prescribed timelines.

### Teaching Assistant - Database Management

University of Texas, San Antonio, TX | Jan 2022 - Jun 2022

- Conducted code reviews and provided feedback for Java and SQLite assignments for over 80 students.
- Improved student performance by 30% through one-on-one tutoring and debugging sessions.