# Serene Plummer

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## EDUCATION

**University of North Texas** — **Denton, TX**
*Bachelor of Science – Computer Science* — *Graduation Date: May 2028*

## SKILLS & INTERESTS

**Languages:** Python, SQL, C++, HTML/CSS, JavaScript

**Tools:** GitHub, Visual Studio, Jupyter, React, Node.js, Microsoft Excel, Figma, Cloud Computing

**Libraries:** Pandas, Matplotlib, Scikit-learn, Plotly, Dash, RESTful APIs, Responsive Design, Folium Lab

**Concepts:** Full-Stack Development, Agile Development, Data Analysis, Machine Learning, Version Control, Database Design, ETL Process

**SoftSkills:** Fast-Paced Environment Adaptation, Group Collaboration, Analytical Thinking, Technical Mentoring, Written and Verbal Communication

## WORK EXPERIENCE

**iCode School** — **Propser, TX**
*STEM Instructor* — *Aug 2025 - Present*

- Mentored students through personalized feedback and progress tracking, resulting in a 35% improvement in individual problem-solving abilities and fostering collaborative teamwork within STEM projects.
- Designed and delivered interactive lessons in Python, Java, C#, and JavaScript to over 200 K–12 students annually, increasing student engagement scores by 40% and enhancing comprehension of complex technical concepts.

## PROJECT EXPERIENCE

**Independent** — **Frisco, TX**
*Health Cert – Medical Appointment Booking Website* — *Aug 2025 - Present*

- **Engineered a responsive full-stack web application** using **HTML, CSS, and JavaScript** with modular, mobile-first design principles, achieving 100% mobile compatibility across 5+ device types.
- **Architected scalable front-end infrastructure** structured for seamless backend integration (MongoDB) and enterprise deployment, reducing future development time by 40%. This development process involved **automated** testing frameworks to ensure quality, showcasing strong skills in **auto** testing.
- Conducted **requirements analysis** to understand diverse user needs and translated healthcare objectives into technical specifications, leveraging **analytics** for improved **client service**. Additionally focused on **occupational health** and **immunization** tracking.

*Stock Market Prediction & Financial Analysis* — *Apr 2025 - May 2025*

- Achieved 88% prediction accuracy and reduced mean absolute error by 12% through hyperparameter tuning and model validation, applying **automated processes** for enhanced predictions and using active learning techniques.
- Processed and visualized financial datasets using Pandas and Matplotlib, implementing RMSE and MAE performance metrics for data-driven investment insights.
- Gathered and documented **business analytics** from financial stakeholders.

*SpaceX Mission Success Predictor* — *Jul 2025 - Jul 2025*

- Implemented 3 machine learning classifiers (SVM, Decision Tree, and k-NN) using Python to predict mission outcomes with **95%** accuracy on real-world SpaceX datasets, integrating **artificial intelligence** to enhance predictive outcomes alongside **variation** analysis for better results.
- Applied web scraping, data wrangling, and exploratory data analysis techniques to extract meaningful business insights from 2,500+ mission records, interpreting data to reduce analysis time by 60% through optimized algorithms **enhancement** through data visualization.

## CERTIFICATIONS & ACHEIVEMENTS

**SQL and Relational Databases 101** – *Cognitive Class* | Feb 2025

**Python Programming Fundamentals** – *Microsoft* | May 2025

**Data Analysis and Visualization with Python** – *Microsoft* | May 2025

**GenAI Chatbots: Create and Deploy OpenAI-Powered Chatbots** | July 2025

**Python Project for Data Science** – *IBM* | July 2025

**COVID-19 Data Analysis Using Python** – *Coursera Project Network* | July 2025

**Front-End Development Capstone Project** – *IBM* | Expected Sep 2025

**Investment Management Job Simulation** – *Fidelity International, Forage* | Sep 2025

## LEADERSHIP EXPERIENCE

**Computer Science Club** — Denton, TX
*Member* — *Aug 2024 - Present*

- Facilitated team-building sessions that increased cross-functional collaboration by 25%, fostering a more cohesive environment for exploring advanced machine learning concepts and NLP integration strategies.