Romerico David Jr.

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EDUCATION

Towson University Towson, MD
Bachelor of Science in Computer Science (3.94 GPA), Minor in Mathematics May 2026

- **Coursework:** Object-Oriented Design and Programming, Data Structures and Algorithms, Software Engineering, Web App Development, IOS App Development, Calculus III, Ordinary Differential Equations, Linear Algebra, Discrete Math, Statistical Methods

TECHNICAL SKILLS

Programming Languages: Java, Python, C++, HTML, CSS, JavaScript (Node.js), TypeScript, LaTex, Swift
Technologies/Frameworks: React, Angular, MongoDB, Express, Bootstrap, NumPy, Matplotlib, pandas, SwiftUI, Jest
Developer Tools: Visual Studio Code, Anaconda, Jupyter Notebook, Git, GitHub, Postman, MongoDB Atlas, Docker, CircleCI

EXPERIENCES

Uber San Francisco, CA
Software Engineering Intern Nov 2024 to Present

- Incoming Summer 2025

SecurEd Inc. Towson, MD
Junior Software Developer Aug 2024 to Present

- Redesigning CLARK and Cyber Competencies products, boosting user engagement and platform usability for 14,000+ active users
- Building and maintaining scalable RESTful APIs using MEAN stack, supporting a web application with 56,000+ downloads
- Developing unit and end-to-end tests for HTTP requests using Jest, improving platform stability and reducing bugs
- Apply and utilize Agile methodologies in sprints, optimizing project timelines and code quality
- Leveraging Git and GitHub for version control, ensuring efficient and seamless team collaboration

Towson University Towson, MD
Computer Science Peer Tutor Feb 2024 to Present

- Provide drop-in tutoring up to 250 students every semester in Java, Python, and C++
- Assist students with understanding the concepts and principles in data structures, algorithms, structured, procedural and object-oriented programming

Towson University Towson, MD
Undergraduate Researcher in Federated Learning Aug 2023 to Jan 2024

- Conducted research on model poisoning in Federated Learning under Dr. Weixian Liao, contributing to the understanding of security vulnerabilities in FL systems
- Utilized the Flower Federated Learning (FL) framework (TensorFlow) to conduct experiments of vulnerabilities to model poisoning attacks in federated learning
- Compared FL aggregation methods FedAvg, FedProx, and QffedAvg across varying types of model poisoning attacks during data processing and model training

Towson University Towson, MD
Research Intern June 2023 to July 2023

- 1 of 12 students chosen for the TIGURS summer undergraduate research program
- Utilized PyTorch, NumPy, pandas, Matplotlib, and scikit-learn to simulate feed-forward, convolutional, and recurrent neural networks using the MNIST and CIFAR-10 datasets
- Evaluated experiments based on Accuracy, Confusion Matrix, Precision, and Recall

PROJECTS

Towson Academic Pathway Sept 2024 to Present

- Developing a web application using the MERN stack to streamline and ease the academic planning process for Towson University students
- Integrating the OpenAI API to generate personalized degree plans tailored to student preferences
- Applying best software engineering practices like continuous integration with CircleCI and interface-driven design

nVolve Sept 2024 to Dec 2024

- Developed an iOS app in Swift to enhance student engagement with Towson University campus events
- Utilized Alamofire to fetch event data from API endpoints
- Integrated an interactive campus map to display real-time event markers using MapKit and CoreLocation
- Implemented local push notifications to keep students updated on upcoming events

Nonlinear ODEs and Linear PDEs Equivalence Project March 2024 to May 2024

- Researched the equivalence between nonlinear ordinary differential equations and linear partial differential equations in fluid dynamics
- Utilized Python and frameworks such as NumPy, SciPy, and Matplotlib for simulation and visualizations
- Developed papers and presentations using LaTex and Microsoft PowerPoint