Romerico David Jr.

romericodavidjr.site • romedavid2@outlook.com • 4XX-XXX-XXXX • linkedin.com/in/romerico-david • github.com/Romerico234

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, JSX/TSX, LaTex, Swift
Frameworks/Libraries: Express.js, React.js, Angular, MongoDB, Bootstrap, NumPy, Matplotlib, pandas
Methodologies: Agile (Scrum, Kanban, Extreme Programming)
Databases: MongoDB
Developer Tools: Visual Studio Code, Anaconda, Jupyter Notebook, Git, GitHub

EXPERIENCES

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, 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

TU Campus Inquiry Project June 2024 to Present

- Developing a full-stack web application featuring a REST API to facilitate student requests and connect them with Towson University counselors
- Utilizing the MEAN stack, Bootstrap, and Nodemailer to enhance email functionality
- Implementing secure authorization using Auth0

Personal Portfolio July 2024

- Developed a personal portfolio website using React.js, and TypeScript JSX (TSX)
- Styled the website using Bootstrap and Vanilla CSS

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