Chloe Crozier

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Education

Clemson University

Bachelor of Science in Computer Science (GPA: 3.85)

- Minors: Mathematics and Economics
- Honors & Certifications: Breakthrough Scholars Program, Clemson University Honors College, AWS Cloud Practitioner
- Clubs & Affiliations: CUhackit (Co-Director), Alpha Omega Epsilon (Treasurer), Undergraduate Teaching Assistant

Experience

Clemson University Capstone Program - NVIDIA

Software Developer

- Partner with NVIDIA to develop a full-stack, virtual teaching assistant for university classes.
- Generate thousands of synthetic data points to fine-tune models, boosting accuracy by 7% and improving teaching capabilities.
- Skills Used: Retrieval-Augmented Generation (RAG), NVIDIA NeMo Framework

Clemson Energy Visualization and Analytics Center (CEVAC)

Software Development Intern

- Create an interactive chatbot for Campus Facilities to manage and submit maintenance tickets, processing over 750 requests monthly.
- Utilize Pub/Sub to handle incoming requests and integrate over 10,000 historical requests to enhance application performance.
- Skills Used: Gemini API, Classification Modeling, Python, MySQL

Deloitte Consulting LLP

Cloud Engineering GPS Summer Scholar

- Hold an active, secret-level security clearance to facilitate AWS cloud migration and optimize an ETL pipeline.
- Achieved a 45% increase in data throughput and a 10% reduction in redundant data.
- Collaborated with design and strategy teams during requirements analysis to ensure applications meet client needs.
- Skills Used: AWS, S3, RDS, Lambda, Postgres, Python, TypeScript

Naval Information Warfare Center (NIWC) Atlantic

Software Engineering Intern

- Managed NIWC's Integrated Testing Facility (ITF) virtual machines using ESXi, vSphere, and iDRAC.
- Achieved **99% automation** of testing for the ITF's core applications using Eggplant Functional and developed documentation for an **80% automation transition** for manual testing teams.
- Skills Used: Shell Scripting, VMware vCenter, SenseTalk, Linux

Clemson Athletics Analytics Center

Data Analytics Intern

- Processed IPTAY donation records with MySQL to develop retention models, which achieved a **15% increase in donor retention** and identified **four risk categories**.
- Integrated Ticketmaster, Fanatics, SalesForce, and Qualtrics API data streams for cloud-based marketing dashboards, aggregating over one million data points.
- <u>Skills Used</u>: Azure DevOps, Tableau, TypeScript, R, MySQL

Projects

High-Performance Cluster Computing | Spack, Slurm, OpenMPI, Docker

- Assemble a four-node Raspberry Pi mini-cluster to simulate Clemson's TOP500 Palmetto Cluster by configuring the environment using Spack to run OpenMPI applications and Linpack benchmarks (maximum performance of ~3.67 GFLOPs).
- Train and prepare with a team of six undergraduates to compete in SC24's international Student Cluster Competition (SCC).

PocDoc - Healthcare on Demand | OpenAI API, MapBox, K-Means Clustering, Linear Regression

- Led a four-member team to build a dashboard that triages mobile health units to patients based on the severity of their condition predicted by an interactive medical-trained language model from Hugging Face and an OpenAPI chatbot for GT's Hacklytics '24.
- Reduced the average response time for triage decisions to under 3 seconds during testing with simulated data.

Cyber-Physical System Anomaly Detection | LSTMs, CUSUM, Keras, TensorFlow

- Analyzed millions of data points in the SWaT dataset, published by iTrust Labs, to design ML models to predict cyber-attacks on the water distribution system.
- Developed four LSTM architectures (sequential, cascade, single-stage, multi-point) to pinpoint system-wide or sensor-specific attacks, achieving a **30% increase in accuracy**.

Washington, DC

Jun. 24 - Aug. 24

Charleston, SC

May. 23 – Jan. 24

Clemson, SC Aug. 23 – May 24

Jan. 24 – Present

Aug. 22 – Nov 23

Feb. 24

Clemson, SC

Clemson, SC

Aug. 24 - Present

Clemson, SC

Jun. 21 – May 25

Aug. 24 - Present