Chloe Crozier

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Education

Clemson University — **Clemson, SC**

Bachelor of Science in Computer Science (GPA: 3.85) — *Jun. 21 – May 25*

- **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 — **Clemson, SC**

Software Developer — *Aug. 24 - Present*

- 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 15%** and improving teaching capabilities.
- Skills Used: Retrieval-Augmented Generation (RAG), NVIDIA NeMo Framework

Clemson Energy Visualization and Analytics Center (CEVAC) — **Clemson, SC**

Software Development Intern — *Aug. 24 - Present*

- 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 — **Washington, DC**

Cloud Engineering GPS Summer Scholar — *Jun. 24 - Aug. 24*

- 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 — **Charleston, SC**

Software Engineering Intern — *May. 23 – Jan. 24*

- 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 — **Clemson, SC**

Data Analytics Intern — *Aug. 23 – May 24*

- 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**.
- Skills Used: Azure DevOps, Tableau, TypeScript, R, MySQL

Projects

High-Performance Cluster Computing | *Spack, Slurm, OpenMPI, Docker* — *Jan. 24 – Present*

- 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* — *Feb. 24*

- 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* — *Aug. 22 – Nov 23*

- 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**.