ANDREW GAO

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EDUCATION

MASTER OF SCIENCE IN COMPUTER SCIENCE   **AUG 2025 - EXPECTED: MAY 2025**
Georgia Institute of Technology | Atlanta, Georgia   GPA: 3.85
- Relevant Coursework: Big Data Systems and Analytics, Data and Visual Analytics, Human-Centered Data Analysis

BACHELOR OF SCIENCE IN COMPUTER SCIENCE   **AUG 2021 - MAY 2024**
Georgia Institute of Technology | Atlanta, Georgia   GPA: 3.94
- Relevant Coursework: Intro to Object Oriented Programming, Data Structures and Algorithms, Design and Analysis - Algorithms, Computer Organization and Programming, Intro to Artificial Intelligence, Intro to Robotics and Perception, Computer Graphics, Machine Learning, Computer Audio, Data Visualization, Automata and Complexity, Advanced Privacy Topics, Deep Learning

WORK EXPERIENCE

SOFTWARE ENGINEERING INTERN   **KLA CORPORATION**   **MAY 2024 - AUG 2024**
- Conducted comprehensive research and analysis of various solutions to enable the transition from a serial to a parallelized Kubernetes architecture for KLA's FleetPack insight generation tools.
- Developed a comprehensive Proof of Concept utilizing Argo Workflows and Argo Events infrastructure for efficient parallel application execution.
- Implemented a custom control system utilizing the Kubernetes C# API and asynchronous programming and multithreading, enabling fully automated parallel job scheduling execution.

SOFTWARE ENGINEERING INTERN   **KLA CORPORATION**   **MAY 2023 - AUG 2023**
- Recreated current batch job infrastructure using a Docker Compose framework, leveraging NATS messaging, PostgreSQL databases, gRPC APIs, and a json job scheduler.
- Researched, identified, and compared suitable data streaming technologies to allow real-time insight generation, letting KLA engineers predict and respond to issues, saving KLA and its customers money and time.
- Created a functional Proof of Concept using Apache infrastructures converting the current batch-based job scheduling system to a real-time streaming architecture that ran predictive algorithms and output live insights.
- Presented weekly research PowerPoints to the entire FleetHub team.

CLOUD AUTOMATION/DEVOPS CO-OP   **KIMBERLY-CLARK CORPORATION**   **MAY 2022 - DEC 2022**
- Developed a Powershell module that automates data export from hundreds of company repositories and imports received data to the GWS Database.
- Wrote over a dozen Terraform modules enabling the automated deployment and maintenance of a variety of Azure resources, including a Terraform module to provision creation and upkeep for website monitors for over 600 Kimberly-Clark websites.
- Designed a webpage using MudBlazor and .NET C# allowing a user to check the health of any given website and perform tasks such as a DNS DIG, Uptime checks, and SSL certificate checks.
- Acquired valuable workplace experience with Agile Development and SOLID principles.

PROJECT EXPERIENCE

SMART STADIUM MACHINE LEARNING TEAM   **VERTICALLY INTEGRATED PROJECT**   **JAN 2023 - PRESENT**
- Co-Authored accepted Springer Nature submission, publication pending.
- Submitted research paper to the International Sports Analytics Conference and Exhibition and won Best Paper.
- Organized a team-wide data cleaning effort on thousands of video clips.
- Performed hyper-parameterization on our convolutional neural network model.
- Investigated incorrectly classified video clips to identify possible patterns.

PARAVOID SOFTWARE TEAM LEAD   **GT VGDEV**   **SEP 2021 - JAN 2022**
- Lead, organize, and plan all software team meetings.
- Communicated goals and priorities set by the project lead to over 20 other programmers.
- Assist inexperienced members in learning the Unity API, C#, and Git.

SKILLS

- Java, Python, C#, JavaScript, Git, Unity, Terraform, PowerShell, .NET, MudBlazor, Azure, REST API, gRPC API, NATS, Docker, PostgreSQL, Apache Spark, Apache Kafka, Apache Camel, Kubernetes, Argo Workflows
- Communication, Leadership, Adaptability, Teamwork, Problem-Solving