

Zain Ghazanfar

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EDUCATION

Georgia Institute of Technology <i>B.S. in Computer Science; Minors in Financial Technology & Business Leadership</i> <i>Courses:</i> Machine Learning, Design & Analysis of Algorithms, DSA, Object-Oriented Principles, Intro to AI, Computer Systems & Networks <i>Awards:</i> Zell Miller Scholarship, Dean's List <i>GPA:</i> 3.94/4.0	Expected Dec 2026 Atlanta, GA
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EXPERIENCE

Software Engineer Intern - Research Systems <i>Arrowstreet Capital</i> <ul style="list-style-type: none">Engineered access-control infrastructure on Prefect (firm-wide workflow orchestrator for research/trading pipelines), automating roles, service accounts, and workspace provisioning from declarative configs.Built an Active Directory client and integrated async aiohttp Prefect API calls to synchronize permissions with lower latency and higher scalability across production environments.Automated daily production runs to validate and align access before time-critical workflows executed, improving reliability and reducing operational risk.	June 2025 – Aug 2025 Boston, MA
Software Engineer (Co-Founder) <i>Zaphor Solutions</i> <ul style="list-style-type: none">Scaled an Amazon business to over \$200K in revenue through FBM and FBA by building Python-based automation systems to track inventory, analyze sales trends, and optimize pricing across 70+ SKUsUsed Python and keyword data analysis to restructure Amazon PPC ad groups, improving conversion rate by 20% and reducing ACoS across multiple listingsDeveloped forecasting models to maintain a 95% in-stock rate, automating reorder logic and vendor coordination	Jan 2024 – Present Alpharetta, GA
Machine Learning Research Intern <i>Georgia Institute of Technology, ACT Lab</i> <ul style="list-style-type: none">Built and optimized deep and reinforcement learning models (CNN, RNN, DQN) in PyTorch to improve trajectory planning and lane changesLed a subteam of 3 undergraduates in refining CNN and DQN models for behavioral cloning and control tasksUtilized GAIL and Transformer-based models to simulate and predict human-like driving behavior in connected vehiclesIntegrated CARLA simulator to create high-fidelity training environments for autonomous agents in various scenarios	Jul 2024 – Present Atlanta, GA
Software Engineer Consultant <i>Endor Media</i> <ul style="list-style-type: none">Engineered scalable AI-powered automation scripts using Python to streamline client acquisition workflowsDesigned and deployed interactive data dashboards by integrating GoHighLevel APIs with custom frontend components, enabling real-time visualization of campaign KPIs, lead generation metrics, and sales performanceImproved website speeds and SEO by implementing server-side rendering, minimizing render-blocking resources, and optimizing JavaScript bundles, resulting in a 2.3x faster load time and enhanced Google Core Web Vitals	Dec 2022 – May 2024
Applied Data Science Researcher <i>Georgia Institute of Technology, SMART Lab</i> <ul style="list-style-type: none">Built Jupyter-based Python scripts to analyze switching dynamics in PZT thin films, improving research efficiencyDeveloped custom data visualization tools using Matplotlib to effectively display experimental findings and trendsImplemented GIWAXS dataframes and pandas to classify, preprocess, and analyze large-scale research datasets	Jan 2023 – May 2023 Atlanta, GA

PROJECTS

Piclasify <i>Python, TensorFlow, OpenCV, Pandas, Scikit-Learn, Matplotlib</i> <ul style="list-style-type: none">Fine-tuned a pre-trained VGG16 model for image classification on CIFAR-10, achieving nearly 85% accuracyBuilt a reproducible data preprocessing pipeline using OpenCV and Pandas to normalize, augment, and prepare image data for model trainingImproved model generalization by conducting systematic hyperparameter optimization across dropout rates, batch sizes, and learning rates using TensorFlow callbacks to prevent overfitting and accelerate convergence

AWARDS AND ACHIEVEMENTS

Eagle Scout	Jun 2023
National Merit Semifinalist	Sep 2022

SKILLS

Languages: Python, C, C++, Java, JavaScript, TypeScript, Go, HTML/CSS, Swift, R, Assembly, L ^A T _E X
Frameworks & Tools: AWS, Docker, React, Node.js, Flask, FastAPI, Git, GitLab CI/CD, Prefect, <code>asyncio/aiohttp</code> , Pandas, NumPy, scikit-learn, TensorFlow, PyTorch, OpenCV, CARLA
Concepts: Workflow Orchestration, RBAC/Access Control, REST APIs, Cloud Infrastructure, CI/CD, Containerization, Concurrency, Predictive Modeling, Reinforcement Learning
Soft Skills: Agile Methodology, Collaboration, Leadership, Communication, Problem Solving