# Blake Sanie

## Software Engineer

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blakesanie.com   in/blakesanie

## Education

### Georgia Inst. of Technology

*M.S. Computer Science*, Dec 23
- 4.0/4 GPA
- Machine Learning focus

*B.S. Computer Science*, Dec 22
- 4.0/4 GPA, Summa Cum Laude

## Languages

Python   JavaScript   Java

SQL   HTML & CSS   C & C++

## Technologies

PyTorch   AWS & GCP   Docker

Redis   MongoDB   React.js

Spark   Tensorflow   Selenium

Jupyter   Databricks   Firebase

## Technical Skills

Git   Data Structures

AI & ML   Statistical Analysis

UI & UX   Algorithm Design

Jira   Distributed Systems

Slack   Cloud Architecture

Linux   Database Design

Jetbrains   Network Analysis

Figma   CI/CD Pipelines

## Business Skills

French Fluency (Verbal & Written)

Farsi Language (Conversational)

Effective Leadership

Critical Thinking

Agile Methodology

Conflict Resolution

## Experience

### College of Computing, Georgia Tech - Atlanta, GA
08/21 - Present

*Head Graduate Teaching Assistant*, Artificial Intelligence
- Managed lectures of 1700+ students by coordinating specialized content among staff, preparing stimulating exercises, moderating student discussions, and integrating weekly feedback
- Eliminated 90% of historical plagiarism by restructuring projects with file watermarks, anomaly-detecting submission platforms, and staff-facing interfaces beyond Stanford's MOSS tool

### Capital One - New York, NY
06/23 - 08/23

*Software Engineering Intern*, Commercial Lending Tech
- Informed hundred-million-dollar loan decisions by achieving 80x data sync speedup between decentralized underwriter databases and enterprise data lake with serverless rearchitecture
- Evolved data sync mechanism into debut enterprise platform with dataset registry, native data streams, background sync validation, monitoring, and self-onboarding

### Capital One - Chicago, IL
06/22 - 08/22

*Software Engineering Intern*, Card Data Engineering & Analytics
- Amplified petabyte-scale sensitive data detection accuracy from 50% to 99% with transformer networks and feature-dense NLP tokenization schemes
- Established continuous training and inference pipeline between AWS EMR, S3, and Fargate to strengthen model coverage, adaptability, and automation

### Schonfeld Strategic Advisors - New York, NY
06/21 - 08/21

*Software Engineering Intern*, Treasury Technology
- Oversaw creation of broker simulation microservice enabling end-to-end tests for multibillion-dollar short allocation system with > 150K daily trade volume
- Coordinated across firms to integrate MS, GS, and JPM locates services
- Delivered React-based admin dashboards with overriding broker controls

## Projects

### Sanie Quantitative Research - Personal Venture
- Pioneered ML stock growth, risk, momentum, and pattern evaluation methods
- Built highly-interactable insight screener with custom criteria engine
- Developed by-your-side stock investment assistant via Chrome extension
- Based on self-devised autonomous strategy with 34% return, 50% risk of S&P

### Distal Radius Object Identification - Emory Dept. of Orthopedics
- Prototyped method to reduce emergency wrist implant extraction complications by inferring implant manufacturer from an x-ray scan, presenting the necessary technique guide.
- Applied K-means clustering, PCA, and RANSAC feature matching to form preprocessing pipeline
- Adapted YoloNetV3 for robust object classification with focal loss for class imbalance
- Resolved small dataset limitations with model-embedded image augmentation
- Presented to top-industry surgeons to align use cases, feature scope, and vision

## Certifications

### AWS Certified Cloud Practitioner - Amazon Web Services
- Critical knowledge of implementing best-practice cloud initiatives with 50+ AWS services
- Hands-on experience with EC2, S3, SNS, EMR, RDS, Lambda, Fargate, Route 53, DynamoDB

### Certified Secure Software Engineer (CSSE) - Capital One
- Defense against Code Injection, XSS, Access Control, and Session Handling vulnerabilities

## Interests

- Landscape photography, road cycling, blues guitar, investment strategy, French cuisine