Owen Fulton

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EXPERIENCE

LAB Quantitative Strategies, Denver, CO   **July 2021-Dec 2023**
Software Engineer II
- Handled $10 million daily transactional volume for concurrent batches of futures/commodities orders by developing an automated trading system using micro-service, event-driven architecture with F#, NServiceBus, and AWS (Elastic Container Service, SQS/SNS)
- Reduced order time to execution by 100% by efficiently aggregating account, strategy, position, and order information and automating order sizing and construction logic
- Promoted business transparency of critical system functions and involved domain experts in testing order construction scenarios by creating BDD/unit tests with .NET testing frameworks (xUnit, TickSpec)
- Improved system maintainability by building an auditing service for record keeping of important order information in Amazon Aurora PostgreSQL, an alerting service with integrations for Slack/MSTeams and email, and application monitoring and alerting dashboards with Serilog structured logging in Datadog
- Achieved sub-5 minute issue resolution time by training a production support team that diagnosed and fixed trading related problems for multiple international markets
- Standardized provisioning of AWS services across engineering team with Terraform and improved CI/CD pipelines by 66% with parallel build steps and Docker image/application dependency caching

Software Engineer I
- Developed a containerized Spring Boot server to proxy information from an order management system to internal services and improved response times by 75% with in-memory caching for highly requested data
- Reduced application issues by 50% and improved recoverability by spearheading the transition from manual container maintenance on AWS EC2 to container orchestration on AWS ECS
- Built Python-based portfolio analysis application for intraday monitoring of model exposures, positions, orders, and P&L, accelerating front-end updates using Redis message queues

Lockheed Martin Space, Littleton, CO   **Aug 2020-May 2021**
Software Engineer Intern
- Supported the Space Testbeds and Simulation product's use of AI/ML models to transform the design, development, production, testing and operations of space-based systems
- Enabled static analysis for heavily used components of a large codebase by analyzing key inputs and outputs from C++ models with Clang Abstract Syntax Trees

SKILLS

Languages: F#, Python, C++, Java
Cloud Platforms: AWS, Google Cloud Platform
Tools & Technologies: Docker, Terraform, Bitbucket Pipelines, NServiceBus, Apache Pulsar, Datadog, Git

EDUCATION

University of Colorado at Boulder   **May 2021**
Bachelor of Science Computer Science   **GPA:** 3.83/4.0

CERTIFICATIONS
- AWS Certified Solutions Architect - Associate (2023)
- Machine Learning: Fundamentals and Algorithms - Carnegie Mellon (2022)
- AWS Certified Cloud Practitioner (2021)