

Troy Fischer

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EXPERIENCE

Software Engineer - Lead <i>Capital One</i>	Aug 2025 - Present <i>Chicago, IL</i>
<ul style="list-style-type: none">• Spearheading the architecture of next-generation feature computation systems, aligning performance and scalability requirements across multiple engineering teams and product owners.• Establishing cross-team engineering strategies by defining a canonical set of application behaviors that decouples flexible base logic from optimized execution engines.• Continuously extending an inner-source SDK to enable on-demand feature transformations via <u>polars SQL</u>, bridging capabilities between diverse data platforms.• Mentoring junior engineers on code quality and system design while serving as a technical interviewer to assess incoming talent.	
Software Engineer - Principal	<i>Jan 2024 - Aug 2025</i>
<ul style="list-style-type: none">• Consolidated our current feature computation service down from 5 separate deployments to 1.• Cut our provisioned concurrency costs by 95% by taking advantage of auto scaling policies.• Decreased the size of our application deployment by nearly 66% from 28MB to 10MB• Replaced our legacy feature computation service with our new serverless system which is projected to save \$1.5M per year in RTE costs and \$367k per year in database costs.• Improved feature authoring experience with new CLI utilities, enabling live results on local machines.• Modularized feature computation libraries to support flexible installation of any arbitrary set.• Created developer tooling to provide a cleaner interface for mocking external data sources required during feature computations.	
Software Engineer - Senior Associate	<i>Feb 2022 - Jan 2024</i>
<ul style="list-style-type: none">• Built solutions for on demand data transformations using serverless AWS infrastructure to drive credit card decisioning processes.• Authored code for multiple AWS lambda deployments from initial design to production release.• Completed a feature launch estimated to save the company \$6M annually by stopping undue credit card rewards.• Implemented the topological sort algorithm to enable dynamic dependency resolution for on demand requests.• Instrumented performance tests using the k6 framework to ensure our service level agreements.• Designed a feature authoring self service framework allowing data analysts to build custom data transformations by translating business requirements to python code.	
Software Engineer - Senior Associate <i>L3Harris</i>	March 2021 – Feb. 2022 <i>Palm Bay, FL</i>
<ul style="list-style-type: none">• Maintained a PHP backend to process command and control requests from a browser based GUI.• Gained experience using JQuery to provide dynamic front end content updates.• Upgraded our PHP MVC framework from Yii 1.1 to Yii 2.0.• Developed automated test suites for SOAP web services using SoapUI.	

EDUCATION

University of Florida <i>Bachelor of Science in Computer Science</i>	Gainesville, FL <i>Aug. 2015 – May 2019</i>
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OPEN SOURCE CONTRIBUTIONS

Doom Emacs: [Version Control Bugfix](#)

TECHNICAL SKILLS

AWS Certified Solutions Architect

AWS Services: Lambda, SQS, SNS, Dynamo, S3, Cloudformation, Cloudwatch, IAM

Languages: Python, Go, Java

Developer Tools: Emacs, git, k6, Jenkins, docker

Libraries: pydantic, boto3, httpx, asyncio