Christopher D. **Lasher**

Software Engineer

Sharon, PA, USA

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Summary

Product-minded software engineer, delivering better software solutions, with a spirit of collaboration, and a focus on value.

Experience

Honor — *San Francisco, CA (Remote)*

Staff Software Engineer

2022 – 2023

- Converted our new-hire matchmaking service to an event-driven architecture. Cut from 1 day to within 2 minutes the time for newly hired care professionals to receive and apply to available work, and doubled first week new-hire engagement. Implemented in Amazon SNS and SQS, with a Python worker running in EKS (Kubernetes).
- Created a self-service prototype to validate the impact of exposing our matchmaking pipeline's outcomes to our operations staff, leading to a 90% decrease in on-call pages for our teams' engineers, saving 10+ engineer hours per week. Prototyped via instrumentation in Datadog and persistence in MySQL.
- Rewrote the matchmaking service's API following the prototype's validation, surfacing its outcomes as first-class data to a new UI, unlocking real-time matchmaking decisions for our operations staff, and decreasing mean time to staff from 4 hours to within 30 minutes. Implemented backend in Flask (Python), UI in React, with a MySQL database.
- Integrated a machine-learning model for market-wide matching into the staffing pipeline, reducing operations teams' time spent on long-term staffing by as much as 50% in target markets.

Oden Technologies — *New York, NY (Remote)*

Senior Software Engineer

2020 – 2021

- Refactored a critical-path Apache Beam Java pipeline, reducing cloud spending costs by $5K USD per month on Google Cloud Dataflow (25% of the company's cloud costs).
- Increased observability of production systems by adding distributed tracing. Mean time to resolution of production issues decreased from 1 day to 1 hour. Tracing added into a GraphQL backend implemented in Go, running on Google Kubernetes Engine, through our machine learning & analytics Google Cloud Functions implemented in Python, and exporting to Honeycomb.
- Created a feature for users to identify unexpected events in time series data from manufacturing lines. Same-week sessions for users increased by 20%. Baseline calculations implemented in Python with SciPy, frontend time series and baseline visualization in Highcharts and React, connected via a GraphQL service in Go, with Google Cloud SQL and Heroic time series databases.
- Introduced ensemble (mob) programming and pair programming, reducing pull request (PR) wait time from 4+ days to 4 hours, and eliminating 50% of PRs.

Invitae Corporation — *San Francisco, CA (Remote)*

Senior Software Engineer

2019 – 2020

- Delivered critical features in our variant annotation pipeline, putting the public release of the company's $75M USD investment in non-invasive prenatal genetic screening (NIPS) back on schedule. The NIPS product serves 50+ unborn patients and their families per day. Pipeline implemented in Python (Django, SciPy) with a PostgreSQL database.

HI Digital Solutions — *Omaha, NE (Remote)*

Software Engineer & Technical Lead

2017 – 2019

- Replaced two internal services with Azure Cloud Functions, leading to decommissioning multiple servers and a commercial subscription, saving $12,000 in IT spending and 120 hours of IT support work per year. Azure Cloud Functions implemented in .NET Core (C#) with Azure Cosmos DB.
- Delivered a service synchronizing 100+ daily client leads from national corporate website to internal CRM system. The service had zero known or reported bugs and outages during the 3+ years of its lifetime. Service implemented in Python with a SQL Server database.
- Led adoption of ensemble (mob) programming, leading to an 8-fold reduction in new bugs while maintaining rate of delivery.

5AM Solutions, Inc. *Rockville, MD (Remote)*

Software Engineer & Bioinformatics Analyst *2012 – 2017*

- Rewrote an assay design pipeline producing up to 200 designs per day ($5M+ annual revenue) for Fortune 500 biotech. Customer wait time decreased 50% while assay quality improved by up to 45%. Migrated pipeline from Perl and Java to Python with an Oracle database.
- Improved client adoption of automated testing, TDD, configuration automation, and CI. Production rollbacks decreased 90% while deployment frequency increased from every 2 months to every 2 weeks. Client satisfaction resulted in closing $10M+ in additional contracts over two years.

Skills

Influences	Continuous Discovery, Ensemble/Mob Programming, Lean, ToC, DDD, TDD
Programming Languages	Python, Go, TypeScript/JavaScript (React), C# (.NET Core)
Databases	PostgreSQL, MySQL, SQL Server, OracleDB
Infrastructure/Ops	AWS, Google Cloud, Kubernetes, Docker, Honeycomb, Datadog

Education

Virginia Tech *Blacksburg, VA*

Ph.D., Genetics, Bioinformatics, and Computational Biology

University of Georgia *Athens, GA*

B.S., Biology