Christopher D. **Lasher**

SOFTWARE ENGINEER

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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 new-hire matchmaking system to an event-driven architecture. Cut the time new hires waited for work from 1 day to under 2 minutes. Implemented in Amazon SNS and SQS, with a Python worker running in EKS (Kubernetes).
- Created a self-service prototype to expose automated matchmaking outcomes to operations staff. Decreased pages by 90% and saved 10+ hours per week for on-call engineers. Prototyped using tracing in Datadog and MySQL for data storage.
- Rewrote the automated matching service's API to surface prescient matchmaking outcomes in a new UI for our operations team. Reduced the time to assign staff from 4 hours to under 30 minutes. Defined the RPC API in Apache Thrift, implemented using Flask and Python, and integrated with a React user interface.
- Integrated a machine-learning model for market-wide matching into the staffing pipeline, cutting down operations teams' time spent on long-term staffing by up to 50% in specific markets. Created RPC API to provide market information and receive suggestions, defined with Thrift, and implemented with Flask and Python.

ODEN TECHNOLOGIES   *New York, NY (Remote)*
Senior Software Engineer   *2020 – 2021*

- Refactored a critical-path data streaming pipeline, reducing cloud spending costs by 25%. Pipeline implemented in Java Apache Beam on Google Cloud Platform's Dataflow.
- Increased observability of production systems by adding distributed tracing, cutting mean time to resolution of production issues from 1 day to 1 hour. Tracing added into a Go GraphQL backend service on Google Kubernetes Engine, through our Python machine-learning Google Cloud Functions, and exported to Honeycomb.
- Enabled anomaly detection and investigation of time series data from manufacturing lines. Increased manufacturing process engineers' same-week engagement by 20%. Analysis implemented in Python with SciPy, UI implemented in Highcharts and React with a GraphQL Go backend, microservice interaction over gRPC, with persistence in Google Cloud SQL and Heroic time series DB.
- Introduced ensemble programming (mob programming) and pair programming to the team, 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*

- Put the release of a $75M USD investment in non-invasive prenatal genetic screening (NIPS) back on schedule by delivering critical features in our variant annotation pipeline. The NIPS product served 50+ unborn patients and their families per day. Pipeline implemented in Python (Django, SciPy) with a Postgres database.

HI DIGITAL SOLUTIONS   *Omaha, NE (Remote)*
Software Engineer & Technical Lead   *2017 – 2019*

- Replaced two internal services with serverless technologies, saving $12,000 in cloud spending and 120 hours of support work per year. Azure Cloud Functions implemented in .NET Core (C#) with Azure Cosmos DB.
- Delivered a service synchronizing 100+ daily client leads 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 programming (mob programming), leading to an 8X reduction in change failure rate while maintaining rate of delivery.

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

Software Engineer & Bioinformatics Analyst *2012 – 2017*

- Rewrote an assay design pipeline generating $5M+ annual revenue. 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.
- Led adoption of automated testing, TDD, configuration automation, and continuous integration. 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