

LUCAS DAMLER

Crystal Lake, Illinois | 815 701 6692 | luke@lucasdamlar.dev | www.lucasdamlar.dev

EDUCATION

University of Illinois Urbana-Champaign
Masters of Computer Science

August 2024 - December 2026

Northern Illinois University
Bachelors of Computer Science
Bachelors of Psychology

August 2015 - May 2019

US Army Basic Leadership Course

October 2019

WORK EXPERIENCE

Lead Engineer 1 | McMaster-Carr

Elmhurst, IL

March 2026 – October 2026

- Designed and implemented a web capture system for responsibly capturing, crawling, and mapping requested web addresses.
- Designed and implemented data schema for web capture including retention policies, concurrency, caching, auditing, batching, and orchestration.
- Worked with leadership and stakeholders to plan and refine application roadmap
- Worked with stakeholders to scope and define system capabilities from end to end.
- Introduced and implemented modernized automated end-to-end regression testing for the enterprise.
- Introduced observability and OpenTelemetry concepts to the enterprise and implemented boilerplate configuration library for application teams to easily onboard with.

Principal Application Engineer | Discover Financial Services/Capital One

Riverwoods, IL

June 2023 – March 2026

- Architected and implemented generative AI system leveraging Google's Vertex AI platform to summarize and evaluate customer conversations reducing agent staffing requirements and cost by 40%
- Designed, implemented, and enhanced data masking and encryption framework to ensure sensitive data safety using Java and springboot
- Architected and implemented analytics platform custom reporting UI using Java springboot, react, and Snowflake and to automatically monitor summary accuracy using a mixture of automated evaluation and manual feedback
- Architected and implemented generative AI documentation search platform using Java spring and VertexAI to accurately index, summarize, and serve thousands of policy and procedure documents to call center field agents reducing customer handling time and increasing satisfaction
- Architected and implemented testing and regression pipeline to validate document and config changes to automatically determine search engine accuracy and trends
- Architected and implemented comprehensive and automated change tracking and audit logs for all database, GenAI, and nlp changes using Java spring and Postgres
- Lead technical direction of team
- Mentor younger developers
- Maintain system documentation
- Investigate new technologies to improve existing conversational and generative AI system, or determine viability of new initiatives

Software Engineer Manager | Discover Financial Services

Riverwoods, IL

January 2023 – June 2023

- Lead technical direction of team
- Manage cross department initiatives
- Present status updates and accomplishments to stakeholders
- Write reviews, coach, and prepare developers for promotions and/or more responsibility

Full Stack Software Engineer | Discover Financial Services

Riverwoods, IL
January 2019 – January 2023

- Develop and maintain array of Spring APIs to aggregate, transform, and serve customer data from hundreds of downstream web soap services and rest APIs
- Build Asynchronous, low latency, high throughput messaging APIs to broker and service customer messages from multiple different contact channels
- Designed and enhanced custom reporting application to manage conversational AI responses, configs, and to audit, test, and tune NLP models
- Improved and expanded automated testing and monitoring of conversational AI system
- Design and enhanced architecture diagrams for all components of conversational AI system
- Migrate data center platforms of over 30 APIs in less than 6 months with no downtime

Motor Transportation Operator | Illinois Army National Guard

North Riverside, IL
April 2016 – September 2023

- Lead specialized team to execute and accomplish a diverse set of tasks in challenging environments. Understood logistics, item and personnel manifests, supply lines, convoy procedures, and team dynamics.

TECHNICAL SKILLS

AI/ML: GenAI, VertexAI, Natural Language Processing, Claude Code

Backend: Java, Spring, Kotlin, Golang, NodeJS, Python, C#, C, C++

Frontend: HTMX, JavaScript, TypeScript, React, Vue, VitePress

Data: PostgreSQL, BigQuery, MariaDB, MySQL, SnowSQL, NoSQL, Redis, MS SQL Server

CI/CD: Git, GitHub, GitLab, Jenkins, OCP, AWS, GCP, VMware, Docker

Other: Pub/Sub, Messaging, Kafka, Advanced Design Skills, Data Structures and Algorithms, Databases, WebGL2, Automated Testing and Regression, Caching, Concurrency, Rust