

# MICHAEL KOROSTELEV

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## SKILLS

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- Management: SDLC, Resource Planning, Agile Methodologies, Project Management, Communication
- Expert Level Technical Skills: **Automating Everything**, Hands-on Technical Leadership, Cloud Architect, Serverless Computing, AWS, CloudFormation, Lambda, APIGateway, DynamoDB, CloudFront, CodeBuild/CodePipeline, CDK, Kinesis/Firehose, Athena, StepFunctions, SNS/SQS, etc. NoSQL Databases, Graph Databases, Distributed Systems, Security, Microservices, Event Driven Architecture, Async Computing, Containerization, JavaScript, TypeScript, Rust, Python, Bash

## PROFESSIONAL EXPERIENCE

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### CYCLIC.SH (CYCLIC SOFTWARE)

Remote

#### Co-Founder, CTO

2021-Present

- Software engineering and strategic management of [cyclic.sh](https://cyclic.sh), a cloud serverless PaaS product
- Scaled from inception to over 1m deployments, over 100k signups, system handling workloads from 2k+ daily active users and 40k+ monthly active hosted web applications
- Developed fully serverless AWS cloud-native system and infrastructure, active-active in 3 cloud regions that automatically orchestrates deployment of Node, Python and Go projects from version control to 18+ cloud regions, user facing dashboards to manage CI/CD, logging & monitoring, etc
- Developed fully instrumented custom lambda runtime using Rust - analytics integrated with observability tools like Honeycomb, and analytics and CRM tools including Segment, Mixpanel, Customer.io, Stripe, etc to monitor and optimize performance, automate CRM and billing, fraud detection and mitigation in software used by tens of thousands of free-tier users
- **Tech Stack:** AWS - Cloudformation, ControlTower, Lambda, APIGateway, IAM, DynamoDB, S3, StepFunctions, CodeBuild/CodePipeline, SQS/SNS, Node.js, Vue, Rust, Docker, Python

### BLACK KNIGHT FINANCIAL SERVICES

Remote

#### Chief Architect - AIVA

2020-2021

- Oversaw all technical aspects, work estimation of automated document OCR and data extraction pipeline product handling over 1 million pages/day of mortgage documents for multiple top US banks
- Led cross-functional remote team of 20+ software engineers, scientists at innovation R&D business unit
- Managed ~ \$250K+ monthly cloud spend after achieving 40% reduction by devising solutions in OCR process concurrency and developing approach to migrate AI model inference to serverless functions
- Developed system poc's using new products like AWS Timestream for internal work item tracking, AWS AppConfig for feature flag implementation, etc.
- Worked closely with external AWS technical team as a development partner on new AWS Textract product
- Led the team through SOC2 and PCI audits for new product, migration from Auth0 and integration with enterprise SSO, designed and implemented Active - Pilot Light failover strategy to 15 minute RPO/RTO spec
- Managed on-ramping remote offshore QA team, designed automated testing framework, collaborated with QA leaders to build and implement testing automation and train team (Cypress, custom)

- **Tech Stack:** AWS - Cloudformation, Lambda, APIGateway, DynamoDB, S3, IAM, StepFunctions, CodeBuild/CodePipeline, CDK, SQS/SNS, Neptune, Athena, Glue, Firehose, Timestream, Quicksight, Node.js, SageMaker, Docker, Python, Jupyter, Microservices, Event Driven Architecture

#### **Applications Development Supervisor**

**2019-2020**

- Led an autonomous team of 5 backend and frontend engineers through full product development lifecycle of correspondent lending platform product from inception as POC through MVP and finally production and transition of product and onboarding a new team
- Worked closely with product managers, customer implementations team, to develop book of work and estimate project timelines in an agile environment
- Mentored multiple teams in adopting new devops practices, AWS serverless technologies and architecture patterns including backends for frontends, microfrontends and microservices
- **Tech Stack:** AWS - Cloudformation, Lambda, APIGateway, DynamoDB, S3, IAM, CodeBuild/CodePipeline, Node.js, Cypress, Python, Jupyter

#### **HEAVYWATER / BLACK KNIGHT FINANCIAL SERVICES**

**Philadelphia, PA**

##### **Senior Platform Engineer**

**2019**

- Designed and developed change management system and process framework to fully automate and track the release management process from user story to production through integrating Rally Agile, GitHub, AWS CodeBuild/CodePipeline, Slack, ServiceNow, Synopsis, and other static analysis tools.
- Developed models to quantitatively estimate developer productivity based on data exhaust from change management system during a high growth period (10 - 30+ engineers over 6 months ) post company acquisition
- Created and implemented standards for applications development including automated data schema enforcement during integration testing of NoSQL database (AWS DynamoDB)
- **Tech Stack:** AWS - Cloudformation, Lambda, APIGateway, DynamoDB, S3, IAM, CodeBuild/CodePipeline, CDK, Jenkins, Bash, Node.js, Python

#### **LEGAL SCIENCE LLC**

**Philadelphia, PA**

##### **Head of Product Development, Senior Engineer**

**2015-2019**

- PI for 2018 NSF SBIR Phase I grant "Machine Assisted Comparative Policy Analysis in Public Health"
- As first engineer at legal tech startup, working closely with founders, CTO and legal team and clients to develop concepts, features and establish new processes, grant proposal writing
- Developed software used by legal researchers to annotate legislature to 'quantify' the law for developing machine learning approaches for legal analysis
- Developed supervised machine learning models to annotate and classify legal text based on training data collected with annotation tool
- **Tech Stack:** AWS - EC2, Docker, Jenkins, Bash, PHP, Node.js, Python, Gensim, Tensorflow, MongoDB, Neo4j, D3js, Jupyter

#### **TEMPLE UNIVERSITY**

##### **Adjunct Faculty, Program Mentor, Research Assistant, Teaching Assistant**

**2009-2015**

- Adjunct Faculty - Development and instruction of Engineering Design Principles course for Tyler School of Art & Architecture. Working with art students to take advantage of physics and engineering in creative designs
- Research Assistant - Research and software development in computer vision, multi-view camera calibration, simulation algorithms for aerial target tracking applications. Contributed to proposal writing.
- Program Mentor - Apps & Maps Design Studio - Develop application project proposals, grant-writing, managing project teams at youth technology incubator. Projects featured in public print and television media

## EDUCATION

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TEMPLE UNIVERSITY, COLLEGE OF ENGINEERING

Philadelphia, PA

*PhD in Engineering (Incomplete, Candidate - ABD)*

2011-2015

*Master of Electrical Engineering*

2009-2011

- Thesis - Multi-view projector-camera calibration for augmented reality applications

*Bachelor of Electrical Engineering;*

2005-2009