

# Sean Krail

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Customer-centric backend software engineer passionate about leveraging expertise in end-to-end software development life cycles to create innovative solutions and deliver exceptional user experiences.

## EXPERIENCE

### Amazon

**Software Development Engineer** | July 2020 – Present

- Tech Lead, guiding and mentoring junior engineers; collaborating closely with program managers, product managers and external development teams to deliver on key organizational goals; and fostering an inclusive culture of innovation and continuous improvement in software development and operation processes.
- Own end-to-end software development life cycles for systems addressing pay defects for over 2MM hourly employees. Deliver both fully automated solutions and employee self-service options, resulting in a total of over \$100MM in YoY cost savings from fraud reduction and headcount reduction.
- Design, develop, and operate numerous distributed, AWS-hosted and CDK-deployed microservices, including latency-critical request-reply servers for customer-facing features with API Gateway, Fargate ECS, Route 53, ALB, and NLB; event-driven, asynchronous backend processors using Lambda, DynamoDB, Kinesis, SNS, and SQS; and both OLTP and OLAP datastores like DynamoDB and RDS for MySQL to support business insights, as well as high-performant runtimes.
- Designed and implemented Amazon's event system for punch-related employee self-service operations that allowed our team to scale out operationally, as well as increasing the speed of our feature delivery.
- Proposed and led a 3-day hackathon project, implementing a machine learning model to predict missed punch time from employee work activity data. This jumpstarted a product initiative that went into production, replacing our rule-based missed punch recommender and improving our recommendation rate by 720 basis points (bps) and employee acceptance rate by 948 bps.

### Jitterbit

**Software Engineer** | March 2017 – July 2020

**Solutions Engineer** | June 2016 – February 2017

- Full stack development of the next generation of the integration platform with modern technologies like TypeScript, Angular, React, Node.js, Redis, DynamoDB, and Lambda.
- Ideated, developed, and managed the "Docker Agent" along with a Helm chart allowing customers and internal teams to run the on-premise agent in a portable, declarative way in a container orchestration tool like Kubernetes. Worked with customers and internal teams to further develop features for the product.

## EDUCATION

**University of Delaware** | 2012 – 2016

Bachelor of Science in Computer Engineering; minors in Computer Science and Mathematics