

# Tony Bernhardt



I'm a **software engineer** in **Seattle** with **7 years** of experience working on multiple teams across Amazon, including cloud computing, voice assistant backends, and customer-facing voice apps. Underlying my career is an enthusiasm for **code quality**, **DevOps**, and **internal tooling**.

## Contact

[tony@tonybernhardt.com](mailto:tony@tonybernhardt.com)

(206) 713-8709

[linkedin.com/in/tonybernhardt](https://www.linkedin.com/in/tonybernhardt)

## Experience

### Software Development Engineer II

**Amazon, Seattle, WA, USA — (Mar 2017 - Feb 2022)**

- Alexa Education / Alexa Kids
  - First engineer on the Alexa Education team (later the Alexa Kids team), with the mission of building trust and engagement between Alexa and the triad of students, parents, and educators.
  - Developed Reading Sidekick, a voice experience for early-reading that includes alternating turns for reading and listening to passages of a book, as well as identification of any reading/pronunciation errors while providing appropriate feedback. Additionally, this software can handle language-learning use-cases.
  - Integrated with third-party learning management systems to enable Alexa users to ask about grades and upcoming assignments so that parents can

help their students stay on track.

- Drove the implementation and improvement of engineering Best Practices and processes (coding guidelines, code review checklists, Git usage, etc.) to assist the team in developing high-quality services in a structured way.
- **Skills:**
  - AWS (Lambda, EC2, DynamoDB, IAM, CDK, CloudWatch)
  - Linux
  - *Databases:* NoSQL
  - *Languages:* Java, Python
  - DevOps
  - Mentoring
  - Cross-team collaboration
  - On-Call
- Alexa Skills Kit
  - Member of the Alexa Customer Enablement Team, responsible for managing customer associations with Alexa Skills (voice apps).
  - Designed updated DynamoDB table schema for more efficient serving of high-volume use-cases.
  - Developed and maintained multiple high-volume (hundreds of thousands of daily requests) services, including a legacy service running code shared with another team which required cross-team coordination and cooperation.
  - Regularly worked with other Alexa teams to help onboard their products with our services and understand their use cases to ensure the best possible experience was being delivered to our end users.
  - Drove continual process improvements to ensure team delivered high-quality, reliable products.
  - **Skills:**
    - AWS (DynamoDB, Lambda, S3, EC2,
    - *Languages:* Java, Python, Ruby
    - Cross-team collaboration

- SQS, SNS, IAM, CloudWatch)
- Linux
- *Databases:* NoSQL
- Code Review
- On-Call

## Software Development Engineer

### **Amazon, Seattle, WA, USA — (Feb 2015 - Mar 2017)**

- Alexa Skills Kit
  - Founding member of Alexa Lantern Team, responsible for creating Alexa Skills for external business partners as a way to kickstart the Alexa Skills marketplace.
  - Developed and maintained high-profile voice apps for external companies (Fitbit, AllRecipes, OpenTable, etc.), all running on AWS stacks tailored to the individual use cases.
  - Built operational tooling for monitoring multiple AWS-hosted voice apps, enabling the team to scale up the number of separate apps that could be managed.
  - As a team technical lead, implemented team Best Practices to meet a high bar for code quality and enable our team to develop many apps in a consistent manner.
  - **Skills:**
    - AWS ( Lambda, DynamoDB, CloudWatch, S3, IAM, API Gateway)
    - *Languages:* Java, Python, Typescript, JavaScript
    - DevOps
    - Mentoring
    - Code Review
    - On-Call
  - Linux
  - *Databases:* NoSQL
- AWS Elastic Beanstalk

- Member of the control plane team of Elastic Beanstalk, which aims to help less technical individuals and organizations deploy web apps on AWS resources without needing to get bogged down in the complexities of an AWS stack.
- Worked on bug fixes and service maintenance while learning the intricacies of being a software engineer in a large corporation that weren't taught in a classroom (code reviews, Agile development-in-practice, operational reviews, etc.).
- Developed canary testing for service APIs and ensuring the behavior of asynchronous operations.
- **Skills:**
  - AWS (Elastic Beanstalk, CloudFormation, EC2, CloudWatch, RDS, S3, IAM)
  - *Languages:* Java, Ruby
  - *Databases:* SQL
  - Linux

## Skills

### Programming Languages

- Java
- Python
- Javascript
  - Node.js
  - TypeScript
- Ruby

### Tech Stack

- AWS: DynamoDB, Lambda, EC2, SQS, SNS, IAM, CDK, CloudWatch
- Databases: SQL and NoSQL
- Linux
- Containers: Docker and Kubernetes

### Other

- DevOps
- On-Call
- Code Review
- Mentoring
- Cross-team Collaboration

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## Education

### Bachelor's Degree in Software Engineering

2015

Auburn University - Auburn, AL

## Certifications

**Certified Kubernetes Administrator (CKA)** | *The Linux Foundation* | Mar '24

**AWS Certified Cloud Practitioner** | *Amazon Web Services* | Jan '24

**AWS Certified Developer - Associate** | *Amazon Web Services* | Jan '24

**Machine Learning Specialization** | *Stanford University & DeepLearning.AI* | Jan '24

## Patents

### Speech Processing Techniques

**Inventor**, US Patent 11,670,285

*Techniques for an interactive turn-based reading experience*

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## Languages

**English** 

Native speaker

**German** 🇩🇪

Elementary proficiency

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