Nick Ortakales

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Senior software engineer with **over 12 years of experience at Amazon** designing and building large scale, high throughput, distributed systems across a variety of business domains. Java and AWS expert with full stack experience.

Skills

Technologies
- Java, AWS (S3, SNS, SQS, DynamoDB, Lambda, CloudWatch, EC2, Elastic Beanstalk, Code Pipeline, EventBridge, CDK, Simple Email Service, Simple Workflow Service), Spring, Guice, Shell (Bash/Zsh), SQL, JavaScript, TypeScript, Node.js, Tomcat, HTML, CSS, JSP, regex

Practices, Skills, Knowledge Areas
- System and architecture design
- Service oriented architecture
- Infrastructure as code and CI/CD
- DevOps (code reviewing, maintenance, migrations, metrics, monitoring, dashboards, oncall, etc)
- Project planning (requirements gathering, scoping, scheduling)
- Database management (primarily DynamoDB, some relational)
- Agile, scrum, kanban, etc, including scrum master experience
- Team collaboration and leadership (mentoring, interviewing, team morale)

Experience

Amazon 2011-present

Senior full stack engineer primarily building and maintaining backend Java services and web-based user interfaces for Dash Replenishment, Buy Box Qualification, and Buyer/Seller Communication.

Software Development Engineer III
Apr 2023 - present

Dash Replenishment
- Built and currently maintain Dash Replenishment, a set of Alexa Smart Home APIs that allow device manufacturers to report levels or usage of consumables associated with a device so Amazon can automatically place orders for the end customer.

- Built the auto-replenishment features that are part of the [Amazon Basics Microwave](#), [Dash Smart Shelf](#) and [Amazon Smart Soap Dispenser](#).
- These services currently process 190 million events (inventory levels, consumption events, restock events) per day and run 70 million evaluations (to determine when to place an order) per day for roughly 140 million connected devices.
- Owned the Dash Button and legacy Dash Replenishment APIs (now retired).
- Still own and maintain Alexa Print (see below).

Software Development Engineer II
Oct 2013 - Apr 2023

- *[Alexa Print](#)* - just say to your Echo, "Alexa, print a sudoku" (you'll need a printer connected to your Echo first - try "Alexa, find my printer"). Designed the architecture, and led a team of developers to build this feature within the existing Alexa ecosystem. Prototyped, scoped and planned project from end to end. Worked closely with the [Amazon Smart Sticky Note Printer](#) team to support their device. Built a variety of first party content like shopping lists, sudoku, mazes and graph paper, as well as support for third party content through skill connections like crosswords and recipes.

- *Seller Feedback* - maintained CRUD storage and calculation of third party sellers' 5-star rating.

- *TREx* - designed, built and maintained an A/B style experimentation platform that enabled internal customers to test the performance of treatment groups against a control group.

- *Buy Box Qualification* - built and maintained a system to evaluate and trigger action against third party sellers with high order defect rates by running over 60 million ruleset evaluations per day against aggregated upstream data. Also built and maintained a corresponding Seller Central UI widget, which gave sellers visibility into their data used for evaluations, and leveraged backend rules to keep evaluation and display logic in sync.

Software Development Engineer I
August 2011 - October 2013

- *Buyer/Seller Communication* - maintained and built new features for a proxy email system that processed over 14 million customer emails per day while protecting both buyers and sellers from various attack vectors. Maintained the end-to-end email processing workflow, and the Amazon.com and Seller Central messaging user interfaces.

Fidelity Investments 2010-2011

Associate Software Developer

- Developed a streaming stock ticker for Active Trader Browser Tools, using C# and Silverlight.
- As a fresh college graduate, trained in Fidelity's "Leap" program which provided 6 months of training from industry experts before placement in a permanent role.

Education

Plymouth State University 2006-2010

- Bachelor of Science in Computer Science
- Mathematics Minor

Interests

At work - accelerating development cycles with continuous deployment and infrastructure as code, building custom internal tools that assist in data inspection and debugging to help develop and debug faster, hacking on IDE extensions

At home - retro video games, comic books, LEGO, building custom mechanical keyboards, racing and modifying MINI Coopers, cider, woodworking