

Erik Sjöholm

(847) 977 - 2938 | easjoholm@gmail.com

SUMMARY

Erik, currently a Senior Software Engineer at [Autodesk](#), is an experienced full-stack (horse) software engineer focused on delivering robust, resilient, and valuable software. Erik has over 6 years of dedicated development experience, and has worked in various roles in technology since 2010. Erik is most excited about finding new ways to provide practical value to consumers whether it be by building high-quality software or making them a latte.

EXPERIENCE

Autodesk, Senior Software Engineer

Portland, OR

November 2021 – current

Customer Facing Products:

- [Autodesk Drive](#)
 - Provides UI for user interactions with autodesk files such as upload, download, browser rendering, sharing, and linking
 - Supports cloud storage for AutoCAD (desktop, web, and mobile), Desktop Connector, Autodesk Construction Cloud and Revit
 - 29k Monthly active users, 5k average daily active users, and 1k requests per minute
- [Autodesk Viewer](#)
 - A public website for anyone to upload and temporarily store an autodesk file type for browser rendering, sharing, and commenting
 - Also supports AutoCAD, Autodesk Drive, Autodesk Vault, InfraWorks, Inventor, 3dsMax, PowerInspect
 - 62k unique monthly active users, 118k unique users and product
- [Autodesk Construction Cloud](#)
 - A collaborative construction project management web application including cost management, task scheduling, cloud storage, and review/approval workflows
 - Back end workflow APIs receive ~3.5k requests per minute

Internal Facing Products:

- Beacon - Internal Developer Portal
 - Green field full stack node/react project based on Spotify's Backstage
 - MVP release at internal Autodesk event: [TechX](#) (May 2-5 2023)

Security, Support, Maintenance, Maturing, & Performance Scaling

- Two year old proxy API microservice supporting Autodesk Drive
 - Performance: implement sorting & filtering on unfiltered endpoints
 - Maturing: Perform black box testing on application, review findings with teams, product owners, and fix or file bugs for resolution
 - Security: Deploy upgraded and encrypted Elasticache for Redis cluster via cutover
- Legacy workflow management API microservice supporting Autodesk Construction Cloud
 - Maturing: Improve error handling of calls to downstream services for known high volume 4xx cases to reduce the number of calls while increasing the resilience of the endpoint resulting in 50% call reduction to roughly 10k calls per hour and observed 30% performance improvement for our application
 - Security: Implement fixes from manual penetration tests. Implement automated penetration testing, review & fix critical/major findings, and introduce the continuous threat modeling process to the team for adoption.
- Legacy API microservice supporting Autodesk Viewer
 - Maintain: Perform manual AMI upgrades via legacy unmanaged build system, and implement automation to reduce toil where feasible
 - Support: Right size, tune, adjust, and observe RDS, Elasticache for Redis, and service EC2 scaling policies
 - Deprecate: Full-stack investigation to determine traffic source, flow, and sink. Identify & document source code, supported features, user segmentation, call volume, and drive decision to deprecate. Coordinate & execute deprecation.

Zapproved, Senior Software Engineer

Portland, OR

November 2017 – November 2021

Mid-Level Software Engineer | May 2019 – September 2020

Software Development Engineer | May 2018 – May 2019

Software Development Engineer in Test | November 2017 – May 2018

Customer Facing Products:

- Z-Discovery (Platform) - 8 enterprise customers
- Digital Discovery Pro (DDP) - 100 enterprise customers, max ~35 concurrent users

Technical Leader

- “What’s the least we can do to iframe DDP into the Z-Discovery platform?”
 - Responsible for design, architecture, develop, and maintenance of critical

- integration points between legacy product and new platform product
 - Prototype, build, implement and consume new microservices, a platform identity provider library, plumb auth(n)(z), cross-account AWS service communication to provide unique identifier relation and bi-directional updates
 - Primary accountable party for end to end implementation of features:
 - SSO, modular feature enablement system, permissions (RBAC),
- “Make exports not suck”
 - Confronted with customer complaints for a particularly non-performant feature my team was given one quarter to ‘make exports not suck’
 - Discuss with product to determine specific complaints, and align tech debt solutions with customer need
 - Prototype, discuss & design with team, and implement solutions to critical performance bottlenecks
 - Image creation
 - Don’t redo work we’ve already done
 - Fail fast
 - Tune service for valid large files
 - Restart from partial progress
 - Track progress
 - Re-use EBS volumes
 - Only re-do what we could not save prior to failure
- “What can you do for us to increase resiliency and redundancy for our customers in Elasticsearch”
 - Special solo project to make use of company provided Elasticsearch training
 - Many customers primary data source was in a single node cluster with limited to no backups
 - Investigate new data architecture (multi-tenancy). Discard as it proposed no known cost savings, additional visibility, additional redundancy, nor resilience
 - Discover, discuss, and vet solution with critical stakeholders in engineering, product, customer success, and sales
 - Determine and codify new product ‘tiers’ using prototyping, testing, observation, and analytical performance modeling
 - Observe production performance of tiers over the following year and document best practices for maintenance, upgrade, and tier design
- “We need you to overhaul this service in less than 90 days, because it got pinged by pen testing”
 - Special project leading two contractors to upgrade a 3rd party ubuntu EC2 hosted service in order to mitigate penetration test findings
 - Investigate service footprint & propose project scopes: must, should, nice-to-have
 - Use terraform, packer, ansible, and TeamCity to build a turn-key zero downtime blue/green deployment system with rollback for version upgrades with all must, all should, and most nice-to-have scopes 1 week ahead of schedule
 - Document architecture, footprint, decisions, support, debugging, testing

(regression and behavior) and the upgrade process such that it was successfully used by others to enable safe minor version upgrading twice in the following 6 months

Production Proven

- Prototype, design, architect, develop and maintain microservices and libraries for use in 20+ microservice ecosystem supporting 3 customer facing products
- Positive track record of driving engineering alerts or customer reported bugs from debugging to deployment
- Storage Service: Design and implement micro service to manage arbitrarily large data on arbitrary storage technologies
- Customer Elasticsearch domain 1.5 to 6 migration

Mentor

- Curate content for group book clubs or discussion/topic guilds
- Reduce the knowledge barriers to entry for development using Elasticsearch through lunch and learns, presentations, and pairing

Team Member

- Force multiplier for my and other teams and a darn good rubber ducky
- Collaborative worker, team enabler, sprint closer
- Doer of the things that the team thinks cannot be done

Software Development Engineer in Test - Digital Discovery Pro (DDP)

- Complete API based test coverage expected to take 1 year in 3 months
- Create special case test suites to build confidence and pin functionality during Elasticsearch migration
- Work closely with QA engineers to devise testing strategy and test cases
- Build and architect end to end generic test framework and first feature test suite

Aon, Service Architect: Enterprise Software

Pittsburgh, PA

April 2014 - April 2017

Service Architect: Enterprise Software

- Actively engage with the development teams within Aon and third party development teams to stay current on emerging stakeholder and development concerns in order to devise and iterate on architectural models for the future
- Product Owner: Desktop applications - Create architecture artifacts such as 1-pager infographics, user stories, UML diagrams, support documentation, project proposals, and implementation plans for technical projects supporting Windows application installation, updates, removal and licensing
- Consult for external team projects for all software license models and payment schedules

Systems Engineer

- Document existing systems, devise system SLA's and identify areas for improvement for

- a multi-geographic, high-availability service
- Product Owner: employee software delivery service (1E AppStore)
- Provide escalated support, own outage resolution, investigate and document root cause
- Support the Microsoft Office product suite and its managed update and deployment packaging for single and multi-language support builds

Expedient Data Centers, NOC Analyst

Pittsburgh, PA

September 2013 – April 2014

- Troubleshoot and investigate issues and alarms from virtual and physical sources
- Manage virtual and physical networks across various OSI layers
- Wrote PowerShell and Bash scripts to automate updates and migration of servers and technologies enabling me to participate in various projects
- Selected for specialized team formed to optimize customer virtual backups

Aon, Technical Support Specialist

Chicago, IL

September 2010 – September 2013

- First employee hired in five years due to overwhelming internship performance
- Selected to lead Windows XP to Windows 7 migration team due to development of image replication and deployment mechanism
- Perform desk side troubleshooting and mentor interns

PROJECTS

Seabold Cellars, Touchstone Winery – Wine production | Fall 2019

- When Chris Miller, M.S. invites you to make wine with him at his winery you go

Great Oregon Wine Company – Wine production | Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021

- Have some fun and learn about wine and the process to make it

NetApp – ONTAP distributed data management OS | Spring 2017

- Develop a test framework in Python to test ONTAP use cases on on FreeBSD based high-availability cluster management stack Corosync and Pacemaker

RubyRide – an app-driven ride-hailing service | Winter 2016

- Developed augmented reality (AR) map navigation demo in Unity game development engine
- Worked alone to deliver in a fully remote environment in *very* early stage startup

EDUCATION

University of Pittsburgh, Pittsburgh, PA

Bachelor of Science in Computer Science, 2017

College of Lake County, Grayslake, IL

Associate of Arts in Business Administration, 2009

PC Technician Certification, 2008

SKILLS

Languages: C# (.Net Core/Standard), Java (Spring Boot), Javascript/Typescript, Python, SQL, git

Frontend Frameworks: Angular 7-11, React 16, AngularJS 1.7, node 16

DevOps: Terraform, Packer, Ansible, TeamCity, Jenkins, Octopus, Autodesk PSL, Cloudformation Templates

AWS Technologies: SNS, SQS, SES, EC2, RIs, AMI, EBS, EFS, S3, ECR, ECS, Fargate, EKS, SSM, ELB, Auto Scaling, Lambda, Api Gateway, GuardDuty, Cloudformation, CloudWatch, CloudTrail, Route53, Cloudfront Distribution (CDN), WAF, VPC, Security Groups, IAM, ACM, KMS, Secrets Manager, Elastic Beanstalk

Other Technologies: NGINX, Kubernetes, BMC Networker, CommVault, IIS, Apache, Exchange, O365, GCP Cloud Storage, Azure Blob Storage, Apigee, Splunk, SumoLogic

Database Technologies: Elasticsearch (now OpenSearch), Elasticache for Redis, DynamoDB, RDS, Aurora, DynamoDB, SQLite

Systems: Docker, Windows, MacOS, Alpine, Amazon Linux Ubuntu, CentOS, FreeBSD, JunOS, Cisco IOS

Methodologies: Agile, Scrum, Kanban, Waterfall, SDLC, ITIL, TOGAF

Tools: Jira, Confluence, Slack, Google Suite, Microsoft 365, Visio, Trello, Bitbucket, VSTS, Github, Lucidchart