

# Xuejie Yu

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Languages: English (Fluent), Chinese (Native), German (B1)

## Summary

Senior Software Engineer and Technical Lead at AWS, building large-scale systems for batch and real-time data processing with neural network models. Currently leading platform development for Amazon Transcribe, a fully managed speech-to-text service supporting 100+ languages at scale. 10+ years of experience across AWS, IBM, Siemens, and Nokia, spanning distributed systems, machine learning, and full-stack development.

## Work Experience

- | 10.2021 - Present  | AWS     | Senior Software Engineer  |
|--|---------|---------------------------|
| <ul style="list-style-type: none"><li>■ Serve as Technical Lead owning the platform roadmap for Amazon Transcribe and leading a global engineering team (joined as SDE3)</li><li>■ Build and operate a fully managed speech-to-text service supporting batch and real-time streaming transcription across 100+ languages</li><li>■ Design and deliver core ASR platform capabilities including multilingual support, inference optimization, and platform reliability</li><li>■ Drive model consolidation and next generation speech understanding capabilities</li></ul>  |         |                           |
| 11.2015 - 09.2021  | IBM     | Senior Software engineer  |
| <ul style="list-style-type: none"><li>■ Served as product development lead for X-Force Exchange and Threat Intelligent Insight for IBM Cloud Pak for Security, delivering full-stack features across a React/Node.js/Cloudant stack integrated with QRadar, Watson Advisory and IBM X-Force</li><li>■ Designed system architecture for authorisation, notification, AI-powered application protection and big data delivery</li><li>■ Owned DevOps and platform reliability, building CI/CD pipelines and operating services across Kubernetes, Openshift and Cloudflare at scale</li><li>■ Led teams for architecture decisions, customer engagement and business interactions</li><li>■ <b>Awards:</b> Eminence &amp; Excellence Award (3 times, 2017-2019), Manager's Choice Award (5 times, 2017-2019)</li></ul> |         |                           |
| 04.2014 - 10.2015  | Siemens | Frontend development lead |
| <ul style="list-style-type: none"><li>■ Led frontend development for a software architecture analysis tool (now Cape of Good Code at <a href="http://capeofgoodcode.com">capeofgoodcode.com</a>), building interactive graph visualisations with D3.js on a Neo4j backend</li></ul>  |         |                           |

## Patent

- **Detecting inappropriate activity in the presence of unauthenticated api requests using artificial intelligence;** Xuejie YU, Matthias BARTELT, Manuel HAUPTMANN, Ron WILLIAMS, Lidiya TILAHUN, Archana KUMARI

## Publication

- **Interactive SAR Image Representation Using Non-negative Matrix Factorisation;** M. Babaee, X. Yu, G. Rigoll, M. Datcu; IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS), Special issue on "GeoVision: Computer Vision for Geospatial Applications"
- **Interactive Feature Learning From SAR Image Patches;** M. Babaee, X. Yu, D. Merget, G. Rigoll, M. Datcu; IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Milan, Italy 2015
- **Immersive Visual Analytic of Earth Observation Data;** M. Babaee, X. Yu, G. Rigoll, M. Datcu; Big Data from Space, Frascati, Italy, November 12-14, 2014

## Core Capabilities

- **Large-scale Distributed Systems** - Design and deliver batch and real-time data processing pipelines, inference optimization at scale, and high-availability platform architecture
- **Machine Learning & Speech AI** - Production ASR systems, neural network model development, speech-to-text at global scale, image clustering and dimensionality reduction
- **Security & Application Protection** - AI-powered threat detection, unauthenticated API abuse prevention, authorisation and identity systems
- **Full-stack & API Development** - End-to-end product ownership from UI to backend using Node.js, Java, Python, reactive streaming (RxJava), and React
- **Cloud & Infrastructure** - Operating and scaling services across millions of users using AWS, Kubernetes, CI/CD pipelines

## Education

- |                   |   |  |
|-------------------|---|--|
| 10.2012 - 02.2015 | Technische Universität München                  | M.Sc in Communication Engineering            |
| 03.2011 - 08.2012 | Fachhochschule Lübeck                           | Diplom in Computer Science                   |
| 09.2008 - 01.2011 | East China University of Science and Technology | B.E in Electrical Engineering and Automation |