

Taylor Neely

<https://tneely.com>

tneely417@gmail.com

734-546-4691

EXPERIENCE

Amazon Web Services (AWS)

Senior Software Development Engineer, Aurora DSQL

Seattle, WA

Jan. 2024 - Present

- **Distributed Systems:** Designed and built core components of **Aurora DSQL**, a distributed, cloud-native PostgreSQL database written in Rust.
- **Networking:** Implemented high-performance networking layers to enable low-latency communication and efficient query routing across a cluster of nodes.
- **Transaction Pooling:** Developed transaction pooling and coordination mechanisms to ensure correctness and scalability under heavy concurrent workloads.
- **Rust Expertise:** Leveraged advanced Rust features for memory safety, concurrency, and performance in a large-scale production system.

Amazon Web Services (AWS)

Senior Software Development Engineer, Health AI

Seattle, WA

Apr. 2021 – Dec. 2023

- **Service Leadership:** Led design and launch of **AWS HealthOmics**, a managed service for genomics data. Grew adoption 10x post-GA while cutting operational overhead 80%, and drove dozens of feature releases and region launches.
- **Cloud Architecture:** Built event-driven, serverless systems scaling to **5,000 RPS, 100 Gbps throughput**, and multi-petabyte daily ingestion.

Amazon

Software Development Engineer, Prime

Seattle, WA

Jul. 2019 – Apr. 2021

- Delivered scalable personalization, GDPR compliance, and infrastructure-as-code solutions across Prime, driving customer acquisition/retention and pioneering AWS CDK adoption across 10+ teams.

Epic Systems

Software Developer

Verona, WI

Aug. 2016 – May. 2019

- Built perioperative electronic health record software for clinical settings, improving patient readiness and reducing surgical delays.

PUBLICATIONS & PATENTS

R. Kogay, **T. B. Neely**, D. P. Birnbaum, C. R. Hankel, M. Shakya, O. Zhaxybayeva. *Machine-Learning Classification Suggests That Many Alphaproteobacterial Prophages May Instead Be Gene Transfer Agents*. *Genome Biology and Evolution*, 11(10):2941–2953, Oct. 2019. doi:10.1093/gbe/evz206

EDUCATION

Dartmouth College

Bachelor of Arts in Biology, Computer Science with Honors

Hanover, NH

2012 - 2016