

# JEREMY PETER KEYS

Senior Backend Software Engineer | B.S., Computer Science

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## SUMMARY

Highly motivated **backend software engineer** with 8+ years of experience writing and deploying large-scale, high-performance, **distributed** production **Typescript** (NodeJS) and **Python 12-factor** applications to cloud environments, including **Kubernetes on GCP**, and **AWS**. Proficient in backend feature development, relational schema migrations, GitOps, and infrastructure management. Currently enrolled part-time in a **M.S. of Computer Science** at my alma mater, **New Mexico State University**.

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## EXPERIENCE

**Software Engineer, Backend**

**Mar '21 — Present**

*Ginger Labs, San Francisco, CA*

- Led the design and implementation of Notability's backend, self-hosted [Audio Transcription feature](#) (based on Whisper model), including APIs, dataflow, Kubernetes infrastructure, Python socket server and transcription code, analytics, and all other backend elements, which now **processes over 500k hours of audio weekly**.
- Developed [Notability Cloud](#)'s collaborative note-taking services using **CRDTs**, **NATS Jetstream**, **PostgreSQL**, **Redis**, Websockets (via **socket.io**), **GraphQL**, and **REST APIs**.
- Engineered data pipelines for Notability Cloud, from ingestion to offload to cold storage to stream purging, **processing over a billion messages** per week into a single NATS Jetstream cluster and into cold storage, with zero incidence of data loss.
- Developed and currently operate critical server(-side) and operational infrastructure including **GKE workloads**, **ArgoCD applications**, **Terraform modules**, and **CircleCI workflows**.

- Elicited product requirements and implemented [gifting](#) for Notability, generating significant revenue (\$100k-\$1M) since late 2025.
- Developed vanity links for Notability influencers, allowing influencers to link directly to an attributed landing page (with redirect to a **Stripe Checkout Session**).
- Contributed initial and ongoing (backend) **OAuth** implementation for Apple and Google authentication methods for Notability.
- Wrote all Python-side, multi-threaded transcription code for Notability Pro's [Live Transcription](#) feature
- Worked extensively on various Next.JS sites, contributing both simple React-based frontends and complex server-side props generation code.

## Software Engineer, Full-Stack

Apr '18 — Feb '21

*Electronic Caregiver, Las Cruces, NM*

- Helped build [Addison Care](#) to improve patient outcomes and lower costs.
- Developed system for invoking animations in Amazon Sumerian scenes via embedded tags in SSML output.
- Contributed Node.JS microservices for Addison Care.
- Managed deployment process for AWS Lambda microservices.

## EDUCATION

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### M.S., Computer Science

Dec 2027 (Expected)

*New Mexico State University*

15/33 credit hours, 4.0/4.0 GPA. Coursework: Database design, AI, Parallel programming, networking, and automata.

### B.S., Computer Science

August 2018

*New Mexico State University*

Coursework: Discrete mathematics, data structures and algorithms, software engineering, programming languages, operating systems.

## SKILLS

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Backend: NodeJS, Python

SQL: PostgreSQL

NoSQL: Redis

API design: REST, GraphQL, Websockets

K8s: GKE, Helm

Infrastructure: Terraform

CI/CD: CircleCI, Github Actions

Containerization: Docker / Compose (K8s)

GitOps: ArgoCD

Timeseries database: Prometheus

Monitoring and alerting: Grafana

Streaming systems: NATS / NATS Jetstream

Object Storage: GCS, S3, R2

Pub/Sub: NATS, GCS, Google Pub/Sub

Webhooks: Stripe, SendGrid

Websockets: socket.io

Cloud platforms: GCP, AWS

Proxies: Cloudflare, nginx

Tracing: OpenTelemetry

Frontend: React, NextJS

## LANGUAGES

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Typescript / Javascript

Python

SQL

C-like languages

bash/zsh

JSON

YAML

## CERTIFICATIONS

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AWS Developer Prof. (expired)

AWS SysOps Assoc. (expired)

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