

BINAM KAYASTHA

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PROFESSIONAL SUMMARY

I am a fullstack software engineer with over 7 years of industry experience. I enjoy leading architectural discussions and mentoring junior engineers. I spend my free time exploring new technologies and coding.

SKILLS

Frontend: TypeScript, React, Svelte, Next.js, Relay, Redux, Material UI, Shadcn, DaisyUI, Tailwind

Backend: Python, Node, FastAPI, Django, Tornado, Chalice, Pydantic, REST APIs, GraphQL, Tauri

Data Engineering: Data Pipelines, ETLs, Snowflake, Databricks, MySQL, PostgreSQL, Firebase, Supabase, Redis

Infrastructure: AWS, Terraform, Kubernetes, Kustomize, Helm, Cloudflare, Kafka, RabbitMQ, SQS, Github Actions

Others: Virtual/Augmented Reality, Unity, Go, Java, C#, Rust, C

Interests: Coding, Climbing, Configuring my linux home server

PROFESSIONAL EXPERIENCE

Cirkul

Newton, MA, USA

Platform Engineering, Senior Software Engineer

August 2023 - June 2025

- Built several authed Typescript Node Express and Python Fast APIs adhering to the OpenAPI standards.
- Created a public API with authentication to send events to private Kafka queues, which was used by 2 microservices.
- Enhanced observability via Prometheus, Alloy, and Grafana alerts across multiple services reducing the mean time to detect an issue from ~4 hours to ~10 minutes.
- Created development environment with virtual Kafka queues, Postgres, and microservices via Tilt and Docker which allowed multiple developers to work on features in parallel, lowered onboarding costs, made it possible to test critical code changes and reduced testing cycle from ~20 minutes to ~1 minute.
- Automated shopify product creation pipeline through refactoring, sql query generation, and shopify GraphQL calls for certain product types reducing time to creation from 6 hours to 30 minutes.
- Developed various React and Node full-stack internal tools to manage inventory and shipping.
- Developed various Python ETL pipelines which synced 3rd party data into Snowflake via webhooks and cronjobs.
- Migrated multiple microservice apps from Heroku to EKS enabling observability work.
- Migrated CI/CD pipeline from AWS CodeBuild to Github Actions which improved the stability of deployments.

EverQuote

Cambridge, MA, USA

1st Party Sales Engineering, Senior Software Engineer

October 2021 - August 2023

- Built fullstack features React frontend with Relay state hydration and Python GraphQL backend with Postgres.
- Optimized Postgres queries through proper indexing using explain analyze queries and monitoring response times.
- Developed productivity web apps for insurance agents, enabling streamlined call management and task organization.
- Implemented automated callbacks using Twilio, which doubled revenue per lead.
- Enhanced observability via Prometheus, Alert Manager, and Grafana across multiple services.
- Maintained Postgres to snowflake data pipeline by debugging dbt models and airflow configs.
- Mentored junior engineers on different teams through mentorship program giving programming and career advice.

Health/Medicare Website Engineering, Senior Software Engineer

June 2021 - October 2021

- Developed a mobile first responsive multidimensional filtering system for navigating health insurance plans.
- A/B tested various frontend React components, to create new functionality and improve conversion rates.
- Developed application across multiple microservices written in Typescript and Go with JWT authentication.
- Updated versioned Zip to City Go API service used by multiple different microservices.
- Mentored intern on a fullstack React frontend Python backend project.

Ad Engineering, Senior Software Engineer

July 2018 - June 2021

- Developed Python services, tools, and ETLs to effectively analyze the effectiveness (Click Through Rate, Conversion Rate, Cost per Acquisition, Return On Ad Spend) of display and search advertisements to everquote.com.
- Designed and implemented a high-performance Ad Server ETL that processed and aggregated large volumes of data (~250 GBs per day) for advanced analytics via Python in memory caching, Firehose, Databricks, and Snowflake.
- Owned and scaled a multi-arm bandit Ad Server (\$10k/day, 600 req/s), and a Multi Arm Bandit Ad Bidder (\$5k/day), driving targeted advertising campaigns and maximizing ROI.
- Used Natural Language Toolkit (NLTK) to optimize search ads by identifying and linking common search keywords, resulting in improved ad targeting and click-through rates.

Software Engineering Intern

May 2017 - August 2017

- Created an Ad Server by autoscaling EC2 instances caching MySQL queries in Redis (\$5K/day, 200 req/s)

Worcester Polytechnic Institute

Worcester, MA, USA

Student Assistant (Graded homework and assignments, held office hours)

February 2016 - December 2017

- Software Engineering (Java, Agile Development, Scrum, Team collaboration)
- Intro to Python for non-majors
- Operating Systems (Linux kernel development)
- Object-Oriented Design Concepts (Java)
- Systems Programming Concepts (C, Linux)

Cimpress

Waltham, MA, USA

Software Engineering Intern

June 2016 - August 2016

- Developed a Convolutional Neural Network to locate text in challenging low contrast backgrounds in F# and .NET
- Programmed a script to generate diverse text on images used for machine learning models training dataset

ID Tech

Boston, MA, USA

Instructor & Tech Coordinator

June 2015 - August 2015

- Taught Java, Python, and Minecraft Modding courses to kids of ages 10-17

EDUCATION

Worcester Polytechnic Institute

August 2014 - May 2018

Bachelor's, Computer Science

- Software Engineering Project: Hospital Pathfinding App in Java
- Senior Project: Car Windshield HUD Directions with Python, OpenCV, C, and Protobuf
- Association of Computing Machinery (ACM), VP, Hackathon Manager, Event Coordinator, Webmaster

PROJECTS & OUTSIDE EXPERIENCE

Nepalingo - [Link to project](#)

Mentor

- Tech Stack: React, Typescript, Python, Postgres
- An open-source React app that helps people learn the indigenous languages of Nepal.
- Mentored 7 Nepali Students during the Incubate Nepal Summer program.

MeowTime - [Link to project](#)

- Tech Stack: C, Typescript, Javascript, Svelte
- A Pebble watch app to help you do routines written in memory efficient and optimized C code
- Created Svelte configuration page that communicates to the Pebble watch via pkjs

Klamenso

- Tech Stack: Svelte, Rust, Tauri, Postgres
- A local-first, cross-platform ADHD friendly todo application I built for myself that I use everyday.
- Uses YJS CRDT resolution to sync between the local filesystem and Postgres database

HACKATHONS

- Mentor - Upcoming Nepal-US AI Hackathon August 2025
- 2nd place, Everquote Hackathon (Everconnect: A PWA app to chat with agents directly, React, Typescript) 2022
- 2nd place, Everquote Hackathon (Spanish Localization: Localized site with i18n, Next, React, Typescript) 2021
- 2nd place, most liked - GDG Hackathon (Dr. Aller G: Check allergies of a food by voice, Javascript)
- Hackathon Manager - Hack@WPI (Primary organizer of the annual hackathon at WPI) 2017
- Mentor - Hack@WPI (Helped organize the first Hack@ WPI) 2016
- Best use of spatial sound - Holohacks (HoloSense: Sonar for the blind, Unity, C#)
- 1st place - AT&T Virtual Reality Hackathon (Phantom limb syndrome relief via Myo bands, Unity, C#)
- 1st place - AT&T Internet of Things Hackathon (OneArmBand, Arduino)
- 1st place - More Disruption Please (VoxDox: An Alexa to AthenaHealth API, Lambda, Javascript)
- Angel Hack (NutriFact: Barcode scan item for allergens, Javascript)
- WPI ACM Hackathon (A program which converts image to SVG via OpenCV, Python)