# Vy Ngo

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## Technologies & Skills

- **Languages:** Python, Java,  Javascript, SQL
- **Frameworks & Platforms:** Spring Boot, Flask, FastAPI, VueJS, Django
- **Tools:** PostgreSQL, Git, AWS (Lambdas, Eventbridge, SQS, EC2, ECS), Docker, Snowflake, Azure, Dagster, Redis
- **Skills:** Full-stack Development, Data Analysis, CI/CD, Cloud Infrastructure, Monitoring, System Design, Leadership

## Education

**Drake University, Des Moines, IA — B.S. in Computer Science, Mathematics & Data Analytics**

**August 2016 - May 2020**

## Employment

**Technical Lead, AI          Valence                                             May 2024 - Present**
- Key builder from series A to a **$50 Million series B raise**
- Built an AI powered performance management platform
  - Developed an AI powered leadership and career development  coach
  - Optimized both real-time and offline job systems to **generate insights** for users.
  - Built integrations with Google and Microsoft products to enrich the platform
- Built a fully provider agnostic system to consume **OpenAI** and **Anthropic** APIs with fallbacks to increase reliability of services.
- Worked directly with clients to pass **security and compliance** requirements across numerous F500 organizations.
- Worked across the entire tech stack using a **Django** backend and **VueJS** frontend.
- Helped grow the engineering team from **3 -> 13 engineers**
  - Led a team of 10 engineers across 2 teams
  - Defined engineering culture and developed a leveling framework for engineers
  - Defined processes and communication pipelines between engineer and the rest of the org

**Fractional CTO                          Coralx Foundation                          March 2025 - Present**
- Led a team of young engineers and graduate students to build an **AI research assistant** at an NGO focused on building solutions for coral conservation.
  - Built an **ETL pipeline** to ingest research paper data.
  - Implemented **semantic chunking, Graph-RAG, and built evaluation pipelines**.
  - Built out the entire backend with **FastAPI** and frontend with **ReactJS**.

**Software Engineer II               Jetty National Inc.                          July 2022 - May 2024**
- **Led a number of projects** including;

- ○ The implementation of a **mock server** that enabled **comprehensive testing** without relying on data from external integrations.
  - ○ Designed a **standardized framework** for external integrations
  - ○ Planned and implemented several features improving visibility for our **event driven architecture**.
  - ○ Created standards for creating and using **internal libraries**
  - ○ Designed and led a project to create a standardized ledger for residents
- Developed features for and maintained an **ETL pipeline** using **AWS Lambda**, **Eventbridge** and **SQS** responsible for ingesting data for **millions of residents daily**.
- Built **Flask APIs** to service several core products and maintained the data models.
- Improved monitoring by creating **Datadog** metrics and **dashboards** driven by **structured logs**
- Contributed to **production support** and played a vital role in debugging a number of production breaking issues.


**Software Engineer**                    **Discover Financial Services**                    **September 2020 - July 2022**

- Developed and maintained biometric login features for Discover's mobile application using public private key cryptography.
- Created **Spring Boot microservices** to enhance user experience when registering biometrics and logging in using biometrics.
- Simplified API flows to improve successful biometric logins by over **20%** and reduced login times by nearly **50%**.
- Modernized and onboarded cloud applications to a modern **CI/CD** pipeline improving release cadence
- Contributed to the client side of the Discover mobile app using **React Native** and **Redux**.
- Developed automated unit, acceptance, integration, performance and other end to end tests to reduce manual testing time.