Mai Nguyen

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EDUCATION

University of Waterloo

Sep 2021 - Expected 2026

Candidate for Bachelor of Computer Science - Artificial Intelligence Specialization

3.90 GPA

- Relevant Courses: Algorithms, Data Structures & Data Management, Object-Oriented Software Development
- Scholarship: University of Waterloo Alumni@IBM Entrance Scholarship in Mathematics

Work Experience

JustworksToronto, CanadaSoftware Engineer InternJan 2024 - Apr 2024

• Spearheaded the development of the **Time Off feature** to enable Employer of Record (EOR) time-off tracking for a strategic product release key to the company's meeting appeal goals, with **React** and **CraphOI**

- for a strategic product release key to the company's meeting annual goals, with **React** and **GraphQL** Developed **2 internal APIs and databases** after analyzing preexisting codebase to pinpoint missing architecture for onboarding new EOR employees for clients using **Ruby on Rails**, **Retool**, and **Postman**
- Identified opportunities to **improve core code scalability** for country configurations, leading to the initiation of design discussions with other product teams to facilitate **product expansion to 20 additional countries**
- Resolved bugs using Datadog, Kibana, and AWS CLI for monitoring and troubleshooting

Blendable Remote

Software Developer Intern

May 2023 - Jan 2024

- Led the internal **Cron Task Tracking project** to enable crucial background task observability using data visualization libraries and a critical **Slack alert system** for failed tasks with **Django**, **Docker**, and **Typescript**
- Prevented sensitive financial data corruption by implementing a **killswitch system** to prevent issue escalation, **crucial for triaging a system failure** caused by a malfunctioning cron task 2 weeks after feature completion
- Updated UI/UX and widgets for client-facing website with 5,000+ users using Django, SASS, and Alpine.js
- Optimized PostgreSQL database queries to reduce query runtime by 25%+ with Django's database API

FlexJourney

Software Developer

Dec 2022 - Apr 2023

- Designed and implemented the multi-factor authentication feature for a customer journey customization SaaS application with Figma, the MERN stack, and REST API methodologies
- Examined and updated **3+ outdated features** to integrate with new technologies
- Streamlined the development process for other programmers by writing detailed documentation on **Jira** and **Confluence** for new features with **UMLs/sequence diagrams**, and updating old documentation

Quality Engineer Intern Sep 2022 - Dec 2022

- Improved software testing system by integrating local testing frameworks with **TestRail** to monitor test success rates for test suites, and developed **scripts** to improve the test documentation pipeline
- Added missing unit and system tests for features and increased the number of tests by 500% with CypressJS
- Enhanced user experience by minimizing login time through the implementation of JSON Web Token renewal

Projects

Plant Trait Predictor Aug 2024

- A multi-target regression model that can predict 6 plant traits, implemented with PyTorch and NumPy
- Trained with +40,000 plant images and bioclimatic data obtained from TRY and iNaturalist databases, and utilized **pre-processing and normalization techniques** to prepare data

Polaroid Poster Maker

Jan 2021

- A web app that can create trendy Polaroid-style posters by searching for a movie, and a poster will be generated based on the desired parameters, built with Flask, IMDBpy, PIL, HTML/CSS
- The posters generated were saved collectively 40+ times on Pinterest

SKILLS

- Languages: Python, Typescript, Ruby, SQL, HTML/CSS
- Technologies & Tools: Rails, React, GraphQL, Django, PyTorch, NumPy, Mocha/Chai, SASS, Alpine.js, Docker, Flask, CypressJS, Postman, GIT, TestRail, Figma, Bash, Retool, Jira, Confluence