

Gaurav Poona

+1 437-972-9016 · gauravpoona3247@gmail.com ·  linkedin.com/in/gaurav-poona ·  github.com/gaurav3247

Summary of Skills

- Coordinated tasks and fostered collaboration in team projects and lab volunteer work, ensuring efficient workflow and a cooperative team environment
- Addressed challenges in coursework and independent projects by conducting thorough analyses and implementing effective solutions
- Applied technical experience working with the latest development frameworks, libraries, and technologies
- Technical skills: Python, Java, JavaScript, HTML/CSS, React, Git, Django, PostgreSQL, Docker, AWS, Tensorflow

Education

HBSc. in Computer Science and Mathematics *University of Toronto* *September 2020 - April 2024*
Relevant coursework: Software design, Web programming, Intro to databases, Algorithm design and analysis, Data structures, Intro to software engineering, Neural networks and deep learning, Intro to machine learning, Computer vision

Projects

Decidophobia

Technologies Used: Django, REST APIs, Next.js, HTML/CSS, Jira, PostgreSQL, Docker

- Spearheaded the design and development life-cycle of an online shopping aggregator website allowing users to browse and compare products from multiple sources, thus simplifying the shopping experience
- Led Agile development with stand-ups, sprint planning, and retrospectives, using Jira for project tracking and task management to enhance efficiency and team communication
- Engineered a neural collaborative filtering based recommendation system, leveraging machine learning to analyze user behavior and preferences in test environments, designed to alert users about price drops and sales on products
- Engineered and integrated custom permissions to prevent misuse of APIs and mitigate security risks, significantly reducing potential security vulnerabilities identified during development

Kick Live

Technologies Used: Next.js, Flask, Redis, Caddy, AWS

- Designed and created a live football scores and information website with a user-friendly interface, allowing users to easily access and navigate through live scores, team statistics, and player and league information
- Integrated external football API by researching and assimilating comprehensive documentation to ensure accurate and real-time data
- Optimized backend performance by implementing Redis cache, reducing subsequent response times by 95%, resulting in a faster and more efficient user experience during testing with high traffic
- Deployed the application on an AWS EC2 instance, providing a robust foundation for future scalability and high availability

Neural Net

Technologies Used: Python, NumPy, Pandas, Matplotlib

- Researched and developed a neural network framework from scratch in order to improve understanding of deep neural networks
- Integrated stochastic and mini-batch descent algorithms, facilitating a 50% increase in test accuracy on the MNIST dataset
- Incorporated advanced optimizers (momentum, RMSProp, Adam) into the neural network framework, leading to over a 60% increase in test accuracy on the MNIST dataset
- Trained and tested neural networks on various multi-class and binary classification problems, with an average test accuracy exceeding 90% across all problems

Volunteer Experience

Intelligent Adaptive Interventions (IAI) Lab at UofT

September 2023 - December 2023

- Collaborated with graduate students on their research, providing technical and administrative support
- Created and optimized large language models (LLMs) to study how LLMs explore and generate responses
- Recorded and maintained organized records of meeting, future plans, and progress