Anthony Nguyen

Computer Science Graduate

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LinkedIn
Github
Portfolio

EDUCATION

Bachelor of Computer Science

Concordia University

2021 - 2024

Montreal, QC

GPA: 3.57

Relevant courses:

- Introduction to Software Engineering
- Web Programming
- Data Structures and Algorithms
- Databases

Awards:

- 2022-2023 Dean's List

SKILLS

- SQL
- Python
- Java
- C++
- HTML/CSS
- React
- Javascript
- Git

INTERESTS

- Jiu-Jitsu
- Bodybuilding
- Math & Physics

LANGUAGES

- French
- English
- Vietnamese

PROJECTS

E-commerce Web Application

- Extended a pre-existing e-commerce website with new features, including a user recommendation system, dynamic pricing models, and stock management features using Java servlets.
- Designed and implemented a used products panel to display the most and least selling items.
- Redesigned the user interface to improve aesthetics and usability using HTML and CSS.
- Managed the full software development lifecycle, from requirements gathering and system design through implementation and testing, ensuring the application met all specified requirements set by stakeholders.
- Authored a detailed project report that documented the development process, feature descriptions, and testing outcomes.
- Completed in a team of 5.

Database Application for Monitoring Employee Health

- Developed a database application system that monitors employee health across different health facilities.
- Designed an Entity-Relationship diagram to define and illustrate the relationships between various entity sets critical to the application.
- Constructed a comprehensive database schema, detailing all relations and their functional dependencies and normalized all relations to Third Normal Form.
- Implemented 3 triggers to ensure data integrity.
- Implemented and populated the database tables using SQL, followed by testing with 21 transactions and queries to validate system functionality and data integrity.
- Developed a fluid and responsive graphical user interface using PHP.
- Completed in a team of 4.

CNN for EEG Signal Decoding

- Conducted comprehensive research on EEG decoding and brain-computer interface technologies.
- Designed and implemented a convolutional neural network using PyTorch, focusing on optimizing the architecture for EEG signal processing.
- Executed training and hyperparameter optimization to enhance model performance, utilizing the Speech Brain MOABB library for benchmarking against established EEG decoders like EEGNet.
- Analyzed and compared performance metrics, documenting the model's effectiveness in decoding EEG signals relative to state-of-the-art technologies.
- Authored a detailed project report, synthesizing research findings, methodologies, and performance analyses.

CNN for Facial Emotion Classification

- Sourced and augmented datasets of facial images labeled with emotions, including manual labeling to address data gaps.
- Implemented data visualization techniques to analyze class distribution and pixel intensity variations across the dataset.
- Developed and trained a convolutional neural network using PyTorch and Scikit-learn, employing k-fold cross-validation to ensure model robustness and minimize overfitting.
- Analyzed performance metrics and the confusion matrix to evaluate model accuracy, and conducted an analysis of bias to ensure fairness in model predictions
- Completed in a team of 3.