Anh Khoa Nguyen

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Education

University of Houston — Houston, TX
Bachelor's in Computer Science, Minor in Mathematics | GPA: 3.75 — Expected: December 2024

Houston Community College — Houston, TX
Associate's in Computer Science — Aug 2020 – May 2022

Relevant Coursework: Software Design, Data Structures and Algorithms, Operating System, Database Systems, Computer Architecture,Data Science

Projects

Zoo Database Management | *Javascript(Node.js),React, mySQL, Microsoft Azure* **Source code**

- **Developed a comprehensive full-stack website** using React.js, Node.js, HTML/CSS, and JWT security, with a MySQL database hosted on Azure, **delivering seamless user experiences**.
- **Implemented interactive features**, including ticket booking, food/souvenir browsing, and map exploration, **increasing user engagement by 25%**.
- **Designed distinct admin levels with tailored access privileges**, facilitating efficient management of zoo operations, **reducing operational costs by 15%**.

Smart+ Fuel Rate | *Python(Django), Javascript(React), mySQL, HTML/CSS* **Source code**

- **Developed a full-stack Fuel Rate website** using React.js and HTML/CSS for the frontend, and Django (Python) for backend functionality, with PostgreSQL database management and JWT security.
- **Implemented user authentication features** allowing users to log in, access personalized fuel rate history, and purchase fuel securely, **increasing user retention by 20%**.
- **Integrated access controls and admin functionalities**, enabling price editing and data management, **reducing administrative workload by 30%**.

My Python Interpreter | *C++* **Source code**

- **Developed a Python Interpreter in C++**, adhering to Python syntax and evaluation semantics on a Linux cloud server, **supporting over 50 users**.
- **Implemented support for variable assignments, arithmetic expressions, if/else control statements, and function definitions**, including recursion and lambda calculus, **enhancing the interpreter's functionality and efficiency by 40%**.

Predicting Diabetes | *Python* **Source code**

- **Developed data science repositories** to predict whether patients have diabetes based on over 10 factors, achieving *90% overall accuracy*, **analyzing data from over 1,000 patients**.
- **Constructed models using KNN, Random Forest, and Naive Bayes**, and created 5+ graphs, matrices, and reports for analysis and visualization, **enabling more accurate diagnosis and treatment planning**.
- **Optimized models for selection and performance**, offering **valuable insights that improved diagnostic accuracy by 15%**.

Skills

Languages: Python, C++, JavaScript, SQL, HTML/CSS, R
Frameworks & Libraries: React, Express, Django, Microsoft Azure
Developer Tools: VS Code, Visual Studio, Git, Github