ALI TAHA

📞 647-544-5933 ✉ ali.taha@uwaterloo.ca 🔵 alitaha.ca 💼 linkedin.com/in/aliestaha 🔗 github.com/aliestaha

Technical Skills

Languages: Python, Java, C++, HTML/CSS, JavaScript, SQL, Bash
Frameworks: NumPy, Scikit-learn, TensorFlow, Keras, PyTorch, Pandas, Node, Vue
Tools: Linux, PostgreSQL, Git, Jira, Rally, Jupyter Notebooks, WSL, GNU (GCC, Make, GDB)

Experience

Watonomous   **February 2024 – Present**
Autonomous Software Core Member   *Waterloo, Ontario*

- Implemented custom **ROS2 nodes** for sensor data processing and robot control, deploying AI-driven algorithms (using **PyTorch**, **TensorFlow**, **OpenCV**) for autonomous navigation and obstacle avoidance.
- Leveraged **Docker** and **Docker Compose** to create isolated development environments.
- Utilized server infrastructure (**WATcloud**) using **SSH** and **Agent Forwarding** for secure GitHub authentication.

Ford Pro   **January – April 2024**
Software Engineer - Test Automation Co-Op   *Oakville, Ontario*

- Developed 10+ automation scripts in **JavaScript** for end-to-end testing using **Cypress** and **Playwright**.
- Deployed automation scripts on **Tekton** pipelines and managed **CI/CD** processes.
- Executed smoke and regression testing across 3 projects, systematically reported over **80 defects**, and validated fixes.

Blackberry   **May – August 2023**
Full-Stack Developer Co-Op   *Waterloo, Ontario*

- Engineered, deployed, and documented a full-stack solution at Blackberry, enabling **4000** personnel across **29** global offices to seamlessly access and leverage a tool that visualizes region and service records.
- Used **VueJs** to create a user-friendly interface, and **NodeJs** on server-side to handle backend operations.
- Utilized **PostgreSQL** for efficient data management, implemented dynamic search functionality, optimized **SQL** queries for faster data retrieval, and implemented a robust back-end API.
- Achieved a **75%** reduction in processing time by shifting to **JIRA DB**, utilizing **Chef**-managed **cron jobs**.
- Built **Python** scripts for rapid, automated email alerts on key PostgreSQL database changes. Achieved **sub-2-second** delivery of asynchronous notifications, optimizing responsiveness of internal teams.

Projects

🔗 **Neural Networks, Decision-Tress, Learning Models** | *Python, NumPy, Scikit-learn, TensorFlow*   **Present**

- Implemented supervised machine learning models for prediction and classification tasks, including **linear** and **logistic regression**, using **NumPy** for data manipulation and **scikit-learn** for training models.
- Built and experimented with **decision trees**, random forests, and boosted trees (**XGBoost**).
- Completed a project on binary classification of hand-written digit (0-1) recognition using **TensorFlow** and **Keras**.
- Extended neural network models to perform multiclass classification of digits 0-9, using **ReLu** and **Softmax** activation functions for improved accuracy, and **MNIST** database for training.

🔗 **Stock-AI: AI-Powered Stock Market Assistant** | *Python, Selenium, GPT API, React*   **January 2024**

- Developing an AI-driven platform for stock market trading recommendations, integrating real-time data analysis and automated trading within a **72-hour** hackathon.
- Integrated **OpenAI's API** for dynamic stock market predictions by analyzing current news summaries and financial reports.
- Designed and implemented a **Python** backend to fetch and process stock market data and news content, establishing a data pipeline for real-time analysis.

🔗 **Shopping Database** | *Java*   **June 2023**

- Managed a shop's **database**, maintaining **inventory** and **customer records** in two separate text files.
- Utilized programming techniques such as **file I/O**, **OOP**, and **data parsing** to efficiently read and update the text files.

Education

University of Waterloo   **Sep. 2022 – May 2027**
Candidate for Bachelor of Applied Science : Computer Engineering Honours   *Waterloo, ON*