

KARTIKE CHAURASIA

(716)907-3496 | kartikec@buffalo.edu | [LinkedIn : Kartike](#) | [GitHub : Kartike](#) | [Portfolio : Kartike](#)

EDUCATION

University at Buffalo, The State University of New York

Anticipated May 2024

Bachelor of Science in Computer Science Minor in Mathematics

GPA: 3.83/4.00

- Tau Beta Pi - Engineering Honors Society
- David M. Benenson Memorial Scholarship
- 2022 Leaders in Excellence Award
- 2023 Innovative Student Leader Award

WORK EXPERIENCE

Head Teaching Assistant (Data Structures & Algorithms), University at Buffalo

August 2022 – Present

- Provided **debugging and troubleshooting** assistance in **Scala and Java**, integrating **unit testing** to enhance understanding
- Architected and re-engineered programming assignments from **Scala to Java**, and authored **data structures and algorithms programming assignment documentation**, ensuring clarity of instructions and curriculum's relevance and accessibility
- Developed an **automated testing system with Python and Java**, streamlining the programming assignments evaluation process for over **400 students** and employing **JSON for test result storage** along with **Makefile** for build automation

Full Stack Web Developer (NEXT-LEVEL Leadership Conference), University at Buffalo

August 2022 – February 2024

- Engineered a **Python based TCP Handler** that handles incoming requests and **MongoDB** while also developing an **ADA-compliant HTML and CSS using JavaScript**, applying software development principles and **Agile methodologies**
- Reengineered the entire backend system to **Flask**, facilitating a smoother transition of **version control** codebase management to a sophomore colleague, **significantly streamlining the process for future development efforts using**
- Automated team point allocation through **login and registration system**, upon successful task completion for **100+ users**
- Leveraged **AJAX Polling** to create a live scoreboard, reducing **workload by up to 90% compared to the prior conference**
- Initially joined as a **volunteer and but transitioned to a part-time** role based on performance and contributions

Software Engineering Intern, Qarik Group

June 2022 – August 2022

- Engineered Genesis UI's **UI/UX**, a **Docker based framework** using BOSH for simplified multi-cloud deployment
- Worked within a team of 4 to streamline the **deployment, scaling, and upgrading of systems** like Cloud Foundry across multiple **CI/CD pipelines for live deployments** enhancing the **security and efficiency of web application components**
- Developed backend APIs in **Golang** using **Gin web framework** to store, update deployments in **PostgreSQL** database container, adding functionalities using **ReactJS** and implemented deployment data integration using **GitHub API**

PROJECTS

Stock Predictor, [Github Link](#)

June 2023

- Implemented a **Random Forest Regressor model** and utilized the **yfinance library** for data from **Yahoo Finance API**
- Optimized the Random Forest model using **GridSearchCV** for **hyperparameter tuning**, identifying the best parameters from given ranges for the **number of estimators, maximum features, minimum samples split, and bootstrap option**
- The model achieved a **Mean Absolute error of 0.975, Mean Squared Error of 1.763, and a Root Mean Squared Error of 1.328**, indicating a relatively **accurate performance** in predicting the stock closing prices

Handwritten Digit Classifier, [Github Link](#)

March 2023

- Developed a **Convolutional Neural Network (CNN)** in **PyTorch** to classify handwritten digits from the **MNIST dataset**, attaining an **accuracy of 99%** on the validation set
- Integrated a **Generative Adversarial Network (Generative AI Modelling)** to generate synthetic handwritten digits, further enhancing robustness, the generated digits were used in training cycles, contributing to the model's high accuracy

UBay E-commerce Website for University at Buffalo, [Github Link](#)

December 2022

- Led a team of 4 to develop an eCommerce platform for University at Buffalo stakeholders using **ReactJS, FastAPI Python based framework, Sass for CSS, and PostgreSQL for the database using Agile development techniques**
- Designed a secure user account authorization system employing **bcrypt** library and implemented session cookies
- Devised an auction feature using **WebSockets** with real-time bid tracking for the highest bidder when an auction end

SKILLS

Technical: Java, Scala, JavaScript, Python, C, Go, HTML, CSS, ReactJS, MongoDB, MySQL, PostgreSQL, SQL, Git, Docker, TCP/IP, jQuery, Bootstrap, RESTful API, SASS, AJAX, Flask, FastAPI, Gin, Node.js, NumPy, TensorFlow, Pandas, Unix, Linux, Unit Testing

Computer Science Concepts: Computer Vision, Machine Learning, Artificial Intelligence, Distributed Systems, Software Engineering, Web Development, Algorithms, Data Structures, Systems Engineering, Object-Oriented Programming, Networking

LEADERSHIP EXPERIENCE

Student Engagement Ambassador, University at Buffalo

August 2021 – August 2023

- Advised and mentored **12 - 20 students per semester** to help increase campus engagement and foster development

Resident Advisor, University at Buffalo

August 2022 – Present

- Oversaw administrative tasks including budgeting, incident reports, and resident check-ins for a **dormitory of 200+ students**