BHAGAWAT CHAPAGAIN

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EDUCATION

B.S, Computer Science Expected May 2025

Stevens Institute of Technology, Hoboken, NJ

Charles V. Schaefer School of Engineering, **Dean's List**

Relevant Coursework: **Data Structures and Algorithms**, **Agile Methods**, **Test-Driven Software Development**, Programming Languages, Systems Integration

SKILLS

Languages: Python, Java, JavaScript, C/C++, Ocaml, R

Tools: Selenium, Flask, Keras, TensorFlow, Pandas, Jira, Git

Certifications: Lean Six Sigma Green Belt

PROJECTS

Uncrash Philly Philly Codefest at Drexel University, 2024

Collaborated in a team to to analyze car accident data and identify key areas in Philadelphia for Car Safety training and Driver's Education programs based on a real-time updated AI model trained using **MapQuest API, Keras and TensorFlow**.

- Developed a machine learning model to predict automobile insurance rates using Python, leveraging libraries such as **Keras, TensorFlow, and Pandas** for data processing and model training.
- Utilized **Flask** to create a web interface that allows users to interact with the prediction model and view results in real-time, enhancing accessibility and user experience.
- Integrated live traffic data into the predictive model to improve accuracy and relevance, using MapQuest API and data preprocessing techniques implemented in **Pandas**

EzReadz Chrome Extension Stevens Institute of Technology, 2024

Developed and analyzed the effectiveness of a Google Chrome extension to improve user retention.

- **Development**: Implemented a **Queue** data structure in **JavaScript** to interact with a web page's text elements, enhancing the user retention by providing easy access to text customization (typeface and color) options for better readability.
- **Statistical Analysis**: Used **R** to perform Analysis of Variances (ANOVA) testing to determine statistical significance of the extension. The extension's functionality **increased reading retention by an average of 37%** among two types of passages (dull & vibrant).

Voice Stress Detection Project Stevens Institute of Technology, 2024

Contributed as a Software Developer in a team project to develop a AI model for detecting and analyzing voice stress to detect lying with EEG data and extracts of human speech data.

- **Data Analysis**: Implemented and enhanced algorithms in Python for preprocessing and feature extraction, which improved the overall efficiency and accuracy of the classification system.
- **Collaborated on interactive GUI development**: Created and refined graphical user interfaces using **Java and JavaScript**, facilitating better user interaction and experience.
- **Accuracy**: The model was **accurate** in identifying a lying or nervous voice **50%** of the time.

PROFESSIONAL EXPERIENCE

Options Insurance Company, Hershey, PA: Customer Service Representative May 2023 – Aug. 2023

- **Technical Automation Specialist**: Spearheaded the automation of nearly 1000 customer communication processes using **Selenium** for dynamic manipulation of CSS objects, enhancing operational efficiency and user interface interaction. Implemented advanced data management solutions by employing **Pandas** in Python for spreadsheet read/write operations, enabling real-time analysis and utilization of customer data.