# Chinmay Kale

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#### EDUCATION

MS in Computer Science, Rochester Institute of Technology | Rochester, NY

Aug. 2018 - Dec. 2020

Current GPA: 3.7

BS in Computer Science, Pune University | Pune, India

Aug. 2012 – May 2016

GPA:3.5

### Experience

#### Software Engineer at Persistent Systems | Pune, India

July 2016 - July 2018

- Developed and maintained a Python framework called Mario which creates secure patches from software package updates for Linux Based Workstations of an Organization using Bigfix as part of the core team.
- Developed a web scraping module for automatically downloading Linux updates from its Errata pages using beautiful soup.
- Tested these Bigfix Linux patches on different Linux Based Workstations like SuSe, CentOS, Ubuntu, RedHat.
- Managed the Linux Workstations required for testing the BigFix Linux patches.
- Overlooked the Github repo and Jenkins Build Issues.
- Overlooked and Handled some hard L3 support issues for clients using our Bigfix security patches.
- This project was developed and managed using Python, Git, Jenkins, Shell, Bigfix Action Script.

# Research Assistant at Rochester Institute of Technology | Rochester, NY

May. 2019 – Aug. 2019

- Developed "Program Comprehension Experiment Runner" application to gather data on the reader's eye movement while he is reading the source code by tracking the reader's gaze in while reading languages in different paradigms: Object Oriented(OO) and Data Context Interaction(DCI) paradigm.
- Worked on aggregation of data from the eye tracker data and data from the questionnaire with the goal to understand which paradigm is easier for users to comprehend and understand.
- Developed graphical user interface for Application using Python's PyQt.
- Used TinyDB in Backend to store data gathered from Eye tracker experiment.
- Used JSON format for storing experiment configurations.

## Software Engineer Intern at Language Intelligence | Rochester, NY

May 2019 – July 2019

- Designed and implemented workflow process to automate the manual process using C#, .NET framework to allow efficient information flow and retrieval and manage data for our own organization.
- Developed microservices using REST API to enable clients of Language Intelligence to manage their translation projects on our server using C# .NET with POSTGRESQL.
- This project was developed and managed using C#, MSSQL, JSON and XML, SVN, POSTGRESQL.

# PROJECTS

## Handwritten Mathematical Expressions Recognizer | Python, Pandas, Scikit-learn, XML, Git

- Developed a Mathematical Expression Recognizer for reading and parsing handwritten math expressions.
- Performed XML parsing to extract data from xml dataset(CROHME) using beautiful soup.
- Developed code for segmentation, character classification and then parsing of mathematical expression as a whole by finding relationships between individual symbols in expression using Random Forest Classifier with scikit-learn
- Developed code for geometrical and temporal feature extraction using Parzen shape context and Convex Hulls using Scipy
- Compared the resulting mathematical expression with ground truth from the dataset(CROHME dataset) to get the accuracy of the recognizer.
- Git Link: https://github.com/KaleChinmay/Handwritten\_Math\_Expression\_Recognition

## Election Prediction using Sentiment Analysis on Twitter (Hackathon Event) | Python, Flask, JavaScript, HTML, Bootstrap

- Designed and developed an application which performed sentiment analysis on user tweets and used that to predict US election results. This was for a Persistent coding event during the US 2016 election campaign.
- Developed a web server using Python Flask with MongoDb database in the Back-end.
- Designed the web page for the server using HTML, Javascript and Bootstrap with Flask. Displayed the predicted election results on web pages.
- Used Twitter API to extract live tweets from twitter and store in MongoDB.
- Performed feature extraction using Bag of words model and used Naive Bayes to classify positive and negative tweets for presidential candidates and predict the result using scikit-learn.

#### TECHNICAL SKILLS

Languages: Python, C#, Java, JavaScript, SQL, MongoDb, PHP, HTML5, R, C, C++, CSS, MSSQL

Frameworks: React, NodeJS, Flask, JQuery, ASP.NET, Entity Framework

Developer Tools: Git, SVN, Jenkins, TravisCI, Azure, Jupyter, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

Libraries: Pandas, NumPy, Matplotlib, Beautiful Soup, Tensorflow, Keras, Scikit-Learn, PyQt

Operating Systems: Ubuntu, Windows, SuSE, Redhat, CentOS.