

# Omkar Sunil Karnik

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[Github](#) | [Portfolio](#) | [LinkedIn](#)

## SKILLS

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**Programming:** Javascript, Python, SQL

**Front-End:** ReactJS, HTML, CSS, JQuery, Ajax

**Back-End/Database:** NodeJS, Express, MongoDB, MySQL, Mongoose

**Cloud Technologies:** Microsoft Azure, Heroku, Docker, Bitbucket Cloud

**Version Control:** Git

**Familiar:** Java, Tableau, Matlab, PHP, Agile/Scrum, Numpy, Pandas, Matplotlib, Bootstrap, TensorFlow, Postman, ESLint, Prettier

## WORK EXPERIENCE

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### The Sparks Foundation

*Data Science and Business Analytics Intern*

**Singapore - Remote**

*May 2021 - June 2021*

- Utilized linear regression to predict supervised ML tasks, achieving 90.3% accuracy and improving prediction rate by 30%.
- Implemented K-means clustering algorithm on the IRIS dataset using the elbow method to determine the optimal number of clusters, visually represented by a scatter plot.
- Created SQL queries with join clauses to merge data from different tables in the awesome chocolate dataset, allowing more complex and comprehensive data analysis.
- Conducted Exploratory Data Analysis on the Superstore dataset to identify profitable and loss-making product categories as well as determined 3 products that should be discontinued from the loss-making category.

## PROJECTS

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### Secure Password Management System using MERN stack (Mentored by Summer Nguyen, Dev Ops Lead NOVOBI)

- Developed a password management portal similar to Passbolt, securely allowing users to store, edit and share passwords among their team members.
- Created a Chrome extension to generate private and public key pairs and utilized the private key for password decryption and the public key for encryption.
- Implemented RESTful APIs using Node.js, tested them using Postman, and authenticated the user using JWT token.
- Integrated ESLint, Prettier for code quality and consistency checks, and documented the project's requirements, use case diagrams, sequence diagrams, and outcomes, which improved project understanding.

### Web Chat Application and basic Chatbot using Node.js, Express.js, HTML, CSS, and socket.io

- Created an application for a graduate course, allowing users to communicate with multiple users through chat messages.
- Adopted AGILE methodology for the project plan and built three distinct microservices for login, signup, and storing chat history.
- Implemented real-time communication functionality in the web chat application using Socket.io programming.
- Hosted the Microservices on Microsoft Azure, Bitbucket Cloud, Heroku and programmed the CI/CD setup for automatic deployments.

### Audio Classification Android Application Using TensorFlow Lite

- Built an Audio Classification Application using Python that listens to the user's voice and predicts the alphabet spoken.
- Collaborated with other teams to record and acquire a dataset of the voices of 10,000+ people of different cultures.
- Trained the neural network model using the dataset and achieved an accuracy of 65%.

## EDUCATION

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### University of Dayton

*Master's in Computer Science*

Cumulative GPA: 3.96

Relevant Coursework: Cloud Computing and Applications, Algorithm Design, Language-Based Security, Data Visualization.

**Dayton, Ohio**

*Graduated in May 2023*

### University of Mumbai

*Bachelor's in Computer Engineering*

**Mumbai, Maharashtra**

*Graduated in October 2020*

## LEADERSHIP EXPERIENCE

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### University of Dayton Information Technologies (UDIT)

*Event and IT Support Specialist*

**Dayton, Ohio**

*October 2021 - May 2023*

- Facilitated event management for 25+ events and offered technical assistance to board members, faculty, and students for the smooth execution of all events and activities.
- Improved incident management by utilizing the Teamdynamix portal to monitor and resolve an average of 11 daily incidents, collaborating with team members and customers to deliver prompt and effective technical support.
- Imaged, installed new computers as well as performed hardware & software diagnostics and analyzed them to understand system issues to create detailed reports.
- Instructed and equipped 6 new student employees with the necessary skills to effectively resolve daily incidents.