

Omkar Karnik

📞 937-977-8541 ✉ omkark083@gmail.com 💼 [linkedin.com/omkarkarnik2399](https://www.linkedin.com/in/omkarkarnik2399) 🌐 <https://omkarkarnik.github.io>

Education

University of Dayton

Master of Science in Computer Science (GPA: 3.96 / 4.00)

Graduated in May 2023

Dayton, OH

- **Relevant Coursework:** Cloud Computing and Applications(Javascript, MongoDB, Azure, Heroku), Algorithm Design, Language-Based Security (Java, Linux), Data Visualization.(Python)

University of Mumbai

Bachelor of Engineering in Computer Engineering

Graduated in Oct 2020

Mumbai, Maharashtra

Experience

The Sparks Foundation

Data Science and Business Analytics Intern

May 2021 – Jun 2021

Singapore

- Applied linear regression to predict supervised ML tasks, achieving 90.3% accuracy and improving prediction rate by 30%.
- Determined the optimal number of clusters by implementing the K-means clustering algorithm on the IRIS dataset using the elbow method and visualized it with a scatter plot.
- Merged data from multiple tables in the awesome chocolate dataset by creating SQL queries, resulting in more complex and comprehensive data analysis.
- Performed 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

Secure Password Management System | React.js, Express.js, Node.js, MongoDB

- Developed a password management portal similar to Passbolt, securely allowing users to store, edit and share passwords among their team members.
- Constructed a Chrome extension to generate private and public key pairs and used 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 | Node.js, Express.js, HTML, CSS, and socket.io, Azure, Heroku, Docker

- Engineered 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 3 microservices for login, signup, and chat history.
- Enabled real-time communication for 40+ users by implementing socket.io in the chat application.
- Hosted the Microservices on 2+ Cloud platforms including Microsoft Azure, Bitbucket Cloud, Heroku, and programmed the CI/CD setup for automatic deployments.

Basic CRUD operations | ASP.net Core Web API, Entity Framework, SQL Server, and Docker

- Created a Rest API using the MVC framework and integrated it with Swagger to interact with the API.
- Utilized Docker for creating SQL server instance, Entity Framework for data access, and Azure Data Studio for Database Interaction.

Technical Skills

Languages: Javascript, Python, SQL, C#

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

Back-End: NodeJS, Express, MongoDB, MySQL, Mongoose, ASP.NET Core Web API, SQL Server

Cloud: Microsoft Azure, Heroku, Docker, Bitbucket Cloud

Tools & Concepts: Git, VSCode, TensorFlow, Postman, Tableau, OutSystems, Jira, API, Agile Methodology, Cloud Computing