Resume

Name: Akash Prakash Mandlik

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Enthusiastic for AI/ML/Data Science/Data Analyst

Aspiring Data Scientist eager to contribute to team success through hard work, attention to detail and excellent organizational skills. Clear understanding of analysis of Data, Data modeling and coming with solid mathematics background, programming skills. Motivated to learn, grow and excel in Artificial Intelligence industry.

➢ Professional Summary:

- Strong Mathematical foundation and good in **Statistics, Probability, Calculus and Linear Algebra.**
- Experience of **Machine learning algorithms** like **Simple Linear Regression, Multiple Regression, Polynomial Regression, Logistic Regression, SVM, K-NN, Naive Bayes, Decision Tree, Random Forest, Ada-Boost, Gradient Boosting, XG-Boost, K-fold cross validation, Grid Search, Random Search.**
- Skilled in **Minimizing the cost function** based algorithms like: **Gradient Descent, Stochastic Gradient Descent and Batch Gradient Descent** and **Regularizing Linear Models** with the help of **Ridge, Lasso and Elastic Net.**
- Good knowledge of **clustering algorithms** like **K-means, Agglomerative Hierarchical Clustering, Divisive Hierarchical Clustering, DB-Scan, Association Rule learning** and **Dimensionality Reduction** like **PCA, LDA.**
- **Feature Engineering in Python** – Missing value treatment, outlier handling, data transformation, **Feature Selection** and reshaping data using Python packages like Numpy, Pandas and Scikit Learn.
- **Data Visualization techniques** with help of **Matplotlib, Seaborn and Tableau.**
- **Good knowledge** of **Deep Learning (DL)** and hands-on with **Neural Network Architecture, Loss Function, Cost Function, Optimizers, Artificial Neural Networks (ANN), Convolutional Neural Networks (CNN)** and **Recurrent Neural Networks (RNN), LSTM.**
- Skilled in libraries like **Numpy, Pandas, Matplotlib, Seaborn, Statistics models, Scikit Learn, Tensorflow, Keras, OpenCV and NLTK,.**
- Basic Understanding of **Computer Vision techniques** like **Image pre-processing, Image Segmentation, Object detection, Object recognition, Object tracking.**
- Basic Understanding of **Natural Language Processing (NLP)** techniques like **tokenization, stemming, lemmatization, Text Analysis, Matrix TFIDF and word2vec.**
- Hands on Experience in working with **Dockers, Containers, GPU, multiple GPU environment** and **Automatic Mixed Precision techniques.**
- Experience in working with **MySQL** database using **SQL** and basic knowledge of **MongoDB**.
- Basic knowledge of **Amazon Web Services (AWS) Cloud Computing**.
- Good knowledge of **Google Cloud Platform (GCP)** and working with **VMs** and **Servers.**
- Self-motivated team player with good communication and presentation skills.
- Good analytical and **problem solving skills**.

➢ Technical Skills:

- **Programming Languages**: Python, Machine Learning, Deep Learning, Artificial Intelligence, Numpy, Pandas, Sklearn, Tensorflow, Keras, OpenCV, CuDF, CuML, NLTK and Spacy
- **Databases** : MySQL, Basic knowledge in MongoDB
- **Visualization Tools and Libraries:** Basic understanding of Matplotlib, Seaborn and Tableau
- **Platforms and Misc**.: Anaconda, Jupyter Notebook, Google Colab, Spyder IDE, Pycharm, Windows XP/ W10, Mac-OS
- **Web Development:** Basics of HTML, CSS, JavaScript, Redux, ReactJs.
- **Frameworks:** Flask/Django.

➢ Achievements:

- **Top 2%** ile in **Kaggle Competition**.
- **5 star** rating in **Hacker Rank** in Python.
- Being **first three place holders** in competitions like **Handwriting, Sports, and Speech**.

➢ Education:

2021-2023 **Masters Of Computer Applications : MCA**
KKWIEER, SPPU University.

- Post Graduated with CGPA of **8.17**

2017-2020 **Bachelors Of Computer Science: BCS**
PCMCS, SPPU University.

- Graduated with **55%**

➢ Certifications:

- **NASSCOM & Future Skills certified** with Gold Medal.
- **Google Analytics** for beginners.
- **Full Stack Data Science** & **AI** Certification.
- **Spoken Tutorial** certification with python.
- **Great Learning** certified with **Tableau.**

➢ Internships:

1. **Netzwerk Academy - Learning Data science with AI** **03/2023 - ongoing**
2. **August Info-Tech - Python Developer Intern** **01/2023 - 06/2023**
3. **Artificial Mind - Data Science Intern** **02/2023 - 04/2023**
4. **Oasis Info-Byte - Data Science & Analytics Intern** **03/2023 - 04/2023**
5. **Edu-versity – Data Science Intern** **04/2023 - ongoing**

➢ Data Science Projects:

1. Onsite Healthcare Diagnostic

Tools and Technologies used: **Python, Numpy, ML, OpenCV, Flask**
Description:

- The main aim of this project is to develop and merge all the **disease prediction models in one website**.
- Built a multi model classification and regression model by using various **transfer learning techniques** such as **ResNet50, Vgg16, Alexnet, XGBoost** etc.

- Built a backend and frontend and backend using **HTML, CSS** for frontend and **Flask API** as a backend and a deployed entire Docker application machine via integration with **CI/CD pipeline**.

2. Insurance Premium Prediction

Tools and Technologies used: **Python, Pandas, ML, CI/CD, Flask**

Description:

- Developed and deployed a machine learning model for insurance premium prediction that achieved an **accuracy of 85%**, using techniques such as **data exploration, feature engineering, and hyper parameter tuning to optimize the model**.
- Trained and tested various **supervised learning algorithms**, such as linear regression, decision trees, and random forests, using techniques such as cross-validation and regularization to prevent over fitting and improve generalization performance.
- Deployed the model using cloud platforms such as **Heroku using CI/CD pipeline**.

3. Movie Recommender System

Tools and Technologies used: **Python, Matplotlib, ML, CNN, Flask**

Description:

- Led the **end-to-end development** of a machine learning-based movie recommendation system.
- Cleaned, preprocessed, and transformed movie rating data using **Python and applied collaborative filtering techniques** to make personalized recommendations for user.
- Trained, optimized, and tested a Matrix Factorization model with a **95% accuracy score** in predicting user movie preferences.
- Deployed the model as a web application on **Heroku**.

4. Student Performance Indicator

Tools and Technologies used: **Python, Numpy, Matplotlib, ML**

Description:

- Led the **end-to-end development** of a machine learning model to **predict student academic performance** based on demographic, social, and academic data.
- Trained, optimized, and tested a Gradient Boosting model with a **97% accuracy score**.
- Deployed the model as a **Flask API** on an **AWS EC2** instance and integrated it with a **PostgreSQL** database to allow for real-time predictions.
- Achieved **a 20% increase** in student test scores and a **10% increase** in graduation rates as a result of implementing data-driven interventions.

5. Flight Price Prediction

Tools and Technologies used: **Python, Numpy, Matplotlib, CNN,**

Description:

- Led the **end-to-end development** of a machine learning model to **predict flight prices** based on historical data and other variables.
- Trained, optimized, and tested a Gradient Boosting model with a **92% accuracy score** in predicting flight prices.
- Deployed the model as a web application on **Heroku**, allowing users to input their flight details and receive predicted prices.
- Achieved high accuracy rates in predicting flight prices, enabling users to make informed decisions and **save money on air travel**.

6. Cotton Disease prediction

Tools and Technologies used: **Python, Pandas, Numpy, CNN, OpenCV**

Description:

- Led the **end-to-end development** of a **deep learning-based** model **to predict cotton diseases using images**.
- Trained, optimized, and tested a Convolutional Neural Network (CNN) model with a **96% accuracy score** in predicting cotton diseases.
- Deployed the model in a web application using **Flask**, allowing for easy access to users.

7. Stock Sentiment analysis using news headlines

Tools and Technologies used: **Python, Pandas, Numpy, ML, NLP**

Description:

- Led the **end-to-end development** of a **natural language processing-based** model to predict **stock sentiments using news headlines**.
- Trained, optimized, and tested a **Random Forest Classifier** model with a **92% accuracy score** in predicting stock sentiments.
- Deployed the model in a web application using **Flask**, allowing for easy access to users.
- Demonstrated proficiency in Python, NLP, data cleaning and preprocessing, feature engineering, model selection and optimization, Flask web development, and website deployment.

8. Bank Note Authentication

Tools and Technologies used: **Python, Pandas, Numpy, ML, Flask**

Description:

- Led the end-to-end development of a machine learning model to authenticate banknotes based on image data.
- Trained, optimized, and tested a Random Forest Classifier with a **98% accuracy score.**
- Deployed the model in a containerized application using **Docker**, allowing for easy deployment and scaling.
- Developed a **web application interface** for users to **upload banknote images** and receive authentication predictions.

➢ Extra Curriculum:

- Attended workshop on **Advanced Machine Learning** conducted by **Cognifront** Company.
- Attended workshop on **IEEE** conducted by **KKWIEER**.
- Attended workshop on **Future in AI** conducted by **Naresh IT** Academy.

➢ Personal Details:

- **DoB** : 8 July 2000
- **Address** : Nashik, Maharashtra, India.
- **Passport** : Yes
- **Languages Known** : English, Hindi, and Marathi.