Rehan Ahmar Sk

Personal Details

Present Address:	40, 34th Main Road, BTM Layout 2nd Stage, Bangalore – 560 068
Permanent Address:	35/H/6, Gorachand Road, Kolkata – 700 014
Contact No.:	9740493288
Email ID:	rehan.ahmar93@gmail.com
Date of Birth:	15 September 1993
Languages known:	English, Bengali, Hindi
GitHub URL:	https://github.com/Rehan-Ahmar
LinkedIn URL:	https://www.linkedin.com/in/rehanahmar/

Professional Summary

- Software Engineer at Pulse Secure with total work experience of 6 years.
- Worked primarily on back-end development using Python and Java.
- Hands-on experience of web services development, machine learning, deep learning, text search, image processing, web ontology, natural language processing, micro-services architecture, data structures and algorithms.
- Extensive knowledge in computer vision, chatbot development and document processing.
- B. Tech in Computer Science Engineering from IEM, Kolkata.
- Strong analytical and problem-solving skills. Self-motivated learner.

Work Experience

- **Software Engineer 2** in **R&D** unit of **Pulse Secure** from June 2020.
  - ❖ Part of the development team of **Pulse One** (web-based management portal to administrate other Pulse products).
    - Working on backend/microservices development using python.
    - Responsible for implementing new features, improvements and bug fixes for monthly release cycles.
    - Responsible for handling high priority customer escalations involving Pulse One.

- **Specialist Programmer** in **Expert Track** unit of **Infosys Limited** from July 2016 to May 2020.
  - ❖ Part of the development team of **NIA Vision** (computer vision platform for object detection and OCR) from December 2018 to May 2020.
    - Sound understanding of **deep learning** and **object detection**. Knowledge of Neural Networks, CNN, RNN.
    - Hands-on experience of working with PyTorch and Tensorflow.
    - Worked extensively with **computer vision** libraries like *OpenCV, scikit-image, pillow*. Implemented modules for skew-correction, text-cleanup and paragraph segmentation. Compared multiple approaches and libraries.
    - Experience with **Docker**. Worked on the dockerization of Vision.
    - Worked on web scraping using *puppeteer* and *scrapy*.
    - Familiar with other computer vision platforms such as *Google Vision API, Amazon Rekognition, Azure Video Indexer*.

  - ❖ Part of the development team of **Infosys Chatbot Platform** (platform for developing chatbots) from January 2017 to February 2018.
    - Extensive knowledge and hands-on experience of building **chatbots**.
    - Excellent understanding of **machine learning** techniques and algorithms, such as k-NN, Naive Bayes, SVM, Random Forest etc. Implemented the intent prediction module using *scikit-learn*. Experience with common data science toolkit libraries such as pandas, numpy, scipy, matplotlib, anaconda.

- Worked with **natural language processing** libraries *like Spacy, OpenNLP, ClearNLP, NLTK, Wordnet, FastText, Word2Vec*. Implemented modules for spell correction, synonym handling, dependency parsing, named entity recognition, word vectors. Compared results from multiple approaches and libraries.
- Sound knowledge of **search engines** like *Solr* and *Lucene*. Implemented the entity recognition module using *Solr*. Familiar with *Elasticsearch* and *ELK Stack*.
- Experience of other chatbot frameworks like *Dialogflow, LUIS* and *Microsoft Bot Framework*.

❖ Part of the development team of **Infosys Knowledge Platform** (AI platform for developing ontology-based knowledge models) from July 2016 to November 2018.
- Worked extensively on **content ingestion** from various document types to IKP and other databases.
- Expertise in **document processing** libraries like *pdfminer, openpyxl, xlrd, apache poi, pdfbox*.
- Implemented natural language interface for excel documents using *scikit-learn, solr* and *sqlbuilder*.
- Sound knowledge of **Web Ontology Language** and **Description Logics**. Implemented the modules for natural language to DL query generation, extraction of results from knowledge model using DL query.
- Implemented the knowledge-model search module using *Solr*.
- Implemented messaging between python and java modules using *Zeromq*.
- Implemented adapters between IKP and chatbot platforms like *Infosys Chatbot Platform, DialogFlow, LUIS* and *Microsoft Bot Framework*.

❖ Responsible for end-to-end development of numerous client demos and POCs to demonstrate usability, which played crucial role in the future development of above-mentioned products.
❖ Responsible for writing reusable and efficient code for the incremental release activities of above products.
❖ Well versed with agile methodologies. Familiar with CI-CD tools like *Jenkins, JIRA, TFS, Git, Maven, pip* etc.
❖ Knowledge of professional software engineering practices.
❖ Ability to work independently and navigate through ambiguous requirements.
❖ Involved in providing immediate or permanent fix of bugs as and when required.
❖ Strong knowledge of computer science fundamentals like algorithms, data structures and DBMS.
❖ Proficiency in using databases such as *PostgreSQL, Cassandra, MS-SQL, MySQL.*
❖ Extensive experience in web service development and micro-services architecture using *flask, spring, springboot*.
❖ Familiar with BI and dashboard tools like *Grafana, Metabase, Freeboard, Tipboard*.
❖ Expertise in *UNIX* and *shell scripting*.
❖ Experience with test frameworks like *JUnit, JMockit, unittest, pytest*.
❖ Familiar with front-end development. Worked with *AngularJS, Bootstrap, Plotly*.
❖ Reached the finals of *TechGig Code Gladiators Coding Contest* of 2017 representing Infosys.

- **Systems Engineer** in **Engineering Media** unit of **Infosys Limited** from December 2015 to June 2016.
  ❖ Worked on **image processing** and **machine learning** in PoCs for *gender classification, text recognition, barcode detection* and *whistle-post detection* using *scikit-learn* and *openCV*.
  ❖ Completed training on *Android* development.
  ❖ Selected in Internal Job Posting for the post of Specialist Programmer in Expert Track unit.

- **Systems Engineer Trainee** at **Infosys Limited** from July 2015 to November 2015.
  ❖ Completed Generic Training on **Python** and **MS-SQL**.
  ❖ Completed Stream Training on **Engineering Networking and Communication** using C++ and Python.

Courses and Trainings

- Completed **Data Scientist for Enterprise** Nanodegree from **Udacity** (2019). Exposure to Deep Learning, Data Analysis, Data Engineering, Recommendation Engines, Apache Spark. [Credentials]
- Completed course on **Machine Learning** by Stanford University on **Coursera** (2018). Exposure to Supervised Learning, Unsupervised Learning, Dimensionality Reduction. [Credentials]
- Completed training on .NET from University of Engineering and Management (2015).
- Completed training on J2EE from Ardent Computech Pvt. Ltd (2014).

Technical Expertise

Domain Knowledge	Machine Learning, Deep Learning, Computer Vision, Document Processing, Chatbot development, Natural Language Processing, Search Engines, Web Services development, Microservices architecture, Data Structures and Algorithms.
Programming Languages	Python, Java, C++, shell scripting, PL/SQL
Database Technologies	PostgreSQL, MS-SQL, MySQL, Cassandra

Academic Qualifications

Degree	Year	Institute	Board/University	CGPA / %
Bachelor of Technology (B.Tech) in Computer Science & Engineering	2015	Institute of Engineering and Management (IEM), Kolkata	West Bengal University of Technology (WBUT)	8.71
Higher Secondary Examination	2011	Patha Bhavan, Kolkata	West Bengal Council for Higher Secondary Education	83.43%
Madhyamik (Secondary) Examination	2009	Patha Bhavan, Kolkata	West Bengal Board of Secondary Education	86.22%

Academic Distinctions

- Certificate of merit and scholarship from WBCHSE for excellent performance in Higher Secondary Examination.
- Certificate of merit National Science Society for excellent performance in Science Talent Search Examination.
- Certificate of merit from Centre of Pedagogical Studies in Mathematics.

Extra-Curricular Activities

- Completed 9 years' advanced course in Creative Painting from Vidyasagar Academy, Kolkata.