Sourabh Parekh
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A Software Engineer with 2.7 years of experience, handling complex projects and mentoring junior team members. Good knowledge of data structures, algorithms, Object-Oriented Programming, system design, performance analysis & improvement, and scalability improvements.

Programming Languages	:	Python, C++ / C , JAVA(Basic)
Operating Systems	:	Linux / Unix, Windows
Python Frameworks	:	Scikit-Learn, Pandas, Numpy, Flask
Databases	:	MySQL, MongoDB
Web Technologies	:	PHP, HTML
Debuggers	:	gdb
Version control	:	Perforce, Git

Achievements And Awards

- Top 5% in HackerEarth Machine Learning challenge: Adopt a buddy

- Achieve Team Player Shine Award from Cadence.

WORK EXPERIENCE

- **Software Engineer II** .
  Cadence Design System (Dec'18 - Present)   *2.5 Years*
  - **Project 4: Machine Learning (ML) Based Global Placement**
    Technologies Used: Python, C++ / C , Machine Learning
    * Build Multi-Label Classifier to predict the coordinates of cells/nodes of graph/netlist for providing early optimal placement in the flow (i.e. during Protium compile or partition) will help route to resolve the Timing and Congestion issues to a large extent.
  - **Project 3: Mystique Machine Learning (ML) Project**
    Technologies Used: Python, Machine Learning
    * Developed a Machine Learning (ML) Platform from scratch for protium product based on Python (Scikit) - Build Random Forest Classifier for predicting the best directive for placer which helps to reduce the runtime by 50%.
    * Productized the ML solution with the help of C++ wrappers for inference.
    * Developed a backup platform for copying required log files which help to collect data for Machine Learning (ML) training.
  - **Project 2: Pin-Placer**
    Technologies Used: C++ / C
    * Developed an algorithm, which will swap edges from high-density nodes to low-density nodes to balance the edges between nodes, which helps the router to route faster, and finally, we achieved by minimizing the timing and step-count of Graphs / Netlist.
  - **Project 1: QoR (Quality of Results) Comparision Web-Page**
    Technologies Used: Python , HTML , MongoDB
    * Developed a web page using Flask which helps to track performance and analyze with the latest few results.
    * In Back-end, we collect data from the Database using MongoDB for various designs and presents gathered data in the form of tables and visualize through graphs by comparing different builds.

- **Software Developer (Full-Stack)** .
  Applozic: Chat SDK and Messaging API(Sep'18-Nov'18)   *2.5 Months*

  - Developed RESTful API design (Representational State Transfer) extracts the customer service purchased details through userId through JAVA and HQL query language. Improved design and content of web-page pop-up window with HTML and JavaScript.

ACADEMIC DETAILS

Examination	Institute	Year	CGPA
Master in Technology	*Computer Science* ABV-IIITM, Gwalior (M.P)	2018	7.3
Bachelor of Engineering	*Information Technology* BIT, Durg (C.G)	2015	7.72

Professional Certificate

- Certification of Applied Machine Learning in Python (2021)