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# Harshit Bhadani

Personal Website  
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## EDUCATION

### UNIVERSITY OF CALIFORNIA, SAN DIEGO

Master of Science, Major in Computer Engineering

USA

September 2021 - March 2023

- Courses: Python Programming for Data Analysis, Recommender Systems (Machine Learning), Operating Systems

### BITS Pilani

Bachelor of Engineering (Hons.), Major in Electronics and Instrumentation Engineering

India

August 2012 - July 2016

## SKILLS

<b>Skills</b>	Java, C/C++, Python, JavaScript, Assembly, Express.js, React.js, SQL
<b>Tools</b>	Unix, Linux, Git, GitHub, Vim, JIRA
<b>Frameworks</b>	Spring, Express.js, React.js, React Native, Node.js, Bootstrap
<b>Specialization</b>	Data Structures & Algorithms, Object-oriented programming, Web Development, Android App Development, Machine Learning, API Development

## WORK EXPERIENCE

### CAD and Automation Engineer, Nvidia | Python, C++, Java, PyQt

August 2016 - July 2021

- Led a team of 3 to develop design Reporting software infrastructure which was 320% faster than the vendors' flow
- Co-developed Nvidia in-house software, Physical Design Explorer to save 20% of vendor's license usage for basic analysis
- Employed Machine Learning to predict the design flow settings avoiding late fine-tuning of settings saving 30% of TAT
- Co-developed custom router based on hardware design requirements to reduce vendor's license by 20% and TAT by 50%
- Contributed 100K+ lines of code in developing software infrastructure for hardware design teams across all sites
- Developed a backend infrastructure for hardware design teams for version releases that reduced 50% manual effort
- Responsible for development and deployment of Nvidia custom software and tools based on various teams' requirements
- Employed Machine Learning to predict the memory requirement for design execution based on previous data

## SOFTWARE PROJECTS

### Banking System | Spring, Java, MySQL, REST API

- REST APIs to recreate a banking system with the following functionalities related to money transfers
- APIs created to enable transaction between various types of accounts and check balances
- The model also updates the balances based on the interest

### Yelp Restaurant Recommender System | Python, Machine Learning, Pandas, Numpy, Matplotlib

- Developed a restaurant recommendation system for individuals based on Yelp reviews data
- Implemented Cosine similarity, LSI (Latent Semantic Analysis), and CMF (Collective matrix factorization) to build the model
- The recommender system achieved the accuracy of 90% for with the help of previous data.

### Query Builder | Spring, Java, MySQL, Hibernate, JQuery

- Developed an interactive tool to provides an interface to create and run SQL database queries
- The tool supports various joins and filters to make it more robust
- Video demo: <https://youtu.be/pKpS1CmYeVM> | <https://youtu.be/Lxx3RGrCny4>

### Note Keeper: React App to create notes and reminders | React.js, MongoDB, Express.js, JQuery

- Designed a simple react app to create notes and add reminders, similar to Google Keep

### Make Memories - Web Application | MongoDB, Express.js, Node.js, React.js, JQuery

- Designed a web application where a user can share and like photos

## ONLINE COURSES

Machine Learning A-Z

Udemy, 2021

The complete Web Development Bootcamp

Udemy, 2021

The complete SQL Bootcamp

Udemy, 2021