Atul Acharya

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Education

MS
UC San Diego |
Computer Engineering| 2021-Present

Courses: Python for Data Analysis(ECE 143), Web mining and Recommender Systems(CSE 258), VLSI Design and Architecture(ECE 260A)

B.Tech
National Institute of Technology, Tiruchirappalli |
Instrumentation and Control Engineering| 2016 | GPA:9.22/10

Courses: Data Structures & Algorithms, Computer Networks, Linear Algebra, Intro to programming, Computer Organization and Architecture

Skills

Languages:
C++,Java,Python,HTML,CSS,Javascript, Express.js, React.js,MongoDB,SQL, Dart,Perl,Verilog,UNIX,Assembly

Skills: Data Structures & Algorithms, Object-oriented programming, Web Development, Android app development, Machine Learning, API, JIRA

MOOCs

- Machine Learning A-Z|Udemy|2021

- The complete 2021 web development bootcamp|Udemy|2021

- The complete SQL bootcamp|Udemy|2021

- High Performance Computer Architecture|Udacity|2021

Work Experience

Senior Design Automation Engineer, NVIDIA — Jun'18 - Sep'21

- Responsible for design automation and in-house software development from requirements definition through successful deployment.
- Developed *Timing Analyser* tool in Python and MySQL which reduced peak tool license usage by 25% and saved approximately $100,000 per project.
- Employed Machine Learning to predict memory profile of an application and achieved a 99% accuracy in memory allocation to avoid any runtime crashes.
- Developed *Project Disk Space Tracker* web application to monitor per user disk space usage. This achieved a 30% improvement in design cycle time.
- Developed *Netlist Auditor* tool to catch critical design issues early in the project, resulting in a 40% reduction in the design turnaround time

Design Automation Engineer, Qualcomm — Jul'16 - Jun'18

- Responsible for maintaining, debugging and developing software infrastructure for hardware design teams across all sites.
- Developed data collection and reporting infrastructure for design analysis that was 3X faster than the hitherto solution.
- Developed backend automation infrastructure for semiconductor IP teams to perform QA and version releases, which reduced 50% manual effort.
- Automated workload based task assignment through JIRA. This achieved even distribution of work and reduced issue resolution time by 10%

Projects

Photoshare: A social media photo sharing web application

- Designed an end to end Web Application where users can share and like photos. This was designed in MERN stack (MongoDB, Express.js, Node.js, React.js)

AppChat: A group chat android application

- Developed a group chat application using Flutter, Firebase and Dart where group members can chat and share images.

Banking API: A REST API

- Developed a REST API to simulate a banking system supporting functionalities related to transfers and balance auto updation based on interest rate and fees

Facial Recognition based Class Attendance System

- Developed a class attendance system and an interactive GUI in Python, OpenCV and PyQt that detects a student's face and records his/her attendance.

NoteKeeper: React App to create notes and reminders.

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

Achievements

- Institute Medal Winner, NIT Tiruchirappalli, 2012-2016
- Best Innovative Idea Award at IdeaQuest 2015, a design challenge at Qualcomm India
- SuperQualstar(Qualcomm's employee award) for developing reporting infrastructure