

# MOHIT SHARMA

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## SKILLS

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- **Programming Languages and HDLs:** C/C++, MySQL, HTML, JavaScript, CSS, PHP, Verilog, VHDL
- **Scripting Languages:** csh, tcl/tk, python, perl in Makefile based environments
- **Design Tools:** MATLAB, Cadence Tools: Modus, Genus, Innovus, Xcelium
- **Hardware Design Flows:** FPGA, ASIC
- **OS:** Linux (Ubuntu, RHEL, CentOS, SLES, LOP), Windows
- **Software Applications and Version Control:** MS Office (Word, Excel, PowerPoint, Outlook), Zoom, Teams, CVS, git

## EDUCATION

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**Master of Applied Science, Electrical Engineering,** September 2020-Present  
University of Windsor, Windsor ON

**Bachelor of Technology, Electronics and Communication Engineering,** July 2011-July 2015  
Jamia Millia Islamia, Delhi, India

## WORK EXPERIENCE

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**Intern, Mitacs - Aarish Technologies – University of Windsor** October 2021-Present

- Generating and Selecting memories utilizing GF memory compilers by making automated scripts in csh, leading to speed up of turn time from days to hours.
- Scripting done in csh, tcl, python, perl to better QoR and turn time by automating tasks.
- Placed memory macros availing the Cadence Innovus tool and running PNR flow and, ran placement driven synthesis flow using the created def file on Cadence Genus tool.

**Graduate Assistant, University of Windsor, Windsor ON** May 2021-April 2022

- Appointed Lead Teaching Assistant for ELEC-4430 and ELEC-3300 courses and, TA-Grader for GENG-8010.
- Ensured all midterms, finals and assignments were evaluated for a class of 50+ students in a detail-oriented and consistent with proper feedback to students.
- Led weekly lab sessions and motivated students by asking relevant, thought-provoking questions as part of Lab project assessments.
- Answered student questions during 80+ office hours during duration of course.

**Product Validation Engineer, Cadence Design Systems, Noida, India** July 2015-April 2021

- Managed Regression Analysis task, as part of product validation engineer role: Applied scripting and Web development skills to automate tasks and improve productivity of the team and collaborated with team members to better the infrastructure promptly, based on given feedback.
- Designed testcases to test MODUS software to enhance coverage and test new features and, maintained a suite of 2,000+ testcases assigned with updates in software utilizing automation.

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- Developed Web applications using HTML, Javascript, CSS, PHP, MySQL and Perl: Specifically, constructed msgid based webpages that helped gather vital statistics on a suite of around 10,000 testcases enabling easier maintenance.

## **VOLUNTEER EXPERIENCE:**

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Volunteer, Cadence Design Systems

- Volunteered as part of Cadence Noida CSR at the School Building - Construction, Painting and plantation for Vidya and Child at Vatika Center, Shahpur Village, Sector 128, Noida: As part of project, painted school walls, school desks, school boundary walls and tables and took part in plantation drive.
- Cadence Noida partnered with Rise Against Hunger to pack 80,000 nutritional meals as part of a global campaign, where, as one of the volunteers, took part in packing these meals and make a difference in the life of malnourished and unprivileged communities across India.
- Volunteered as part of Cadence Noida CSR for repainting walls of non-profit DESIRE SOCIETY - Caring for HIV/AIDS children in India.

## **CERTIFICATIONS:**

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- "HTML, CSS, and Javascript for Web Developers" from "Coursera, John Hopkins University"
- "Programming, Data Structures and Algorithms" from "Center for Continuing Education, IIT Madras"
- "Machine Intelligence and Learning" from "FITT, IIT Delhi"
- "Introduction to Linux" from "edX, Linux Foundation"

## **PROJECTS:**

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- Hypergraph Partitioning based on KL algorithm and Maze Router based on Lee-Moore algorithm in C++ (Project Links on Github: [HyperGraph Partitioning](#) , [Maze router](#)).
- Designed, synthesized, and implemented a Triple Port RAM on an FPGA kit ([Triple port RAM](#)).
- CNN model built in Tensorflow/Keras to correctly classify images of dogs and cats with at least 63% accuracy (Project Link: [Link](#)).

## **PROFESSIONAL SUMMARY**

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- An accomplished student of Master's in Electrical Engineering Thesis based course with solid educational foundation and applied experience in Embedded System Design, VLSI Design, Webpage Development and Programming.
- 5+ years of work experience acquired at Cadence, managing and maintaining thousands of testcases and improve turn time from days to hours by scripting/automating. Demonstrated abilities to communicate, critical thinking and, solve problems.
- Teamwork and professionalism skills gained as part of volunteering experience while working with different organizations.
- Teaching experience and time management skills gained as part of graduate assistantship at University of Windsor.

## **REFERENCES AVAILABLE UPON REQUEST**