



Mohit Chawla

Portfolio: www.mohitchawla.in

Gender: Male; DOB: January 2, 1994

Software Engineer,
Enterprise & Services Division,
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Education

Bachelor of Technology - Indian Institute of Technology (ISM), Dhanbad (Jul'12 - Apr'16)
Computer Science & Engineering, 8.55 (Absolute, on scale of 10, Class Rank 5/102)
Adviser: Dr. Chiranjeev Kumar (Assoc. Professor & Head)

All India Senior School Certificate Exam (AISSCE) - VM Sr. Sec. School, Kota (2011)
Grade XII, 87.0%

All India Secondary School Exam (AISSE) - St. Anselms Sr. Sec. School, Alwar (2009)
Grade X, 93.4%

Areas of Interest:

Human Computer Interaction, Web Architectures, Machine Learning (plus Genetic Algorithms), Statistical Analysis, Game Theory, Probability Theory, Artificial Intelligence & Natural Language Processing.

Work Experience:

Software Engineer: Samsung R&D Institute, Bengaluru, India (Jul'16 – Present)

Mentors: Pratyush Pushkar and Anugrah K.

Work Domain: Data Mining, Natural Language Processing, Web Architectures

Brief: Auto tagging for app reviews on TizenStore using context aware Named Entity Recognition. Development of mining algorithms, deployment via Elasticsearch & SpringMVC for TizenStore Search engine. Development of 2way authentication mechanism based on Elliptic Curve Cryptography for project e-sim.

Editor & Author: The Bit Theories (<https://thebittheories.com>) (Aug'16 – Present)

Brief: Founded with the aim to bridge gap between Academia and Industry, it is a publication to enable students learn esoteric topics easily via short articles. >20,000 minutes-read within 90 days. Experimenting with novel teaching techniques.

Founder: Cyber Labs (<http://www.cyberlabs.club>) (Jan'15 – Present)

Brief: Founded with the aims of inter-disciplinary research and pragmatic learning approach through solving daily life problems. Learnt a lot by playing roles of technical instructor, designer & manager.

Summer Intern: Stride.ai Inc., Bengaluru, India (Apr'16 – Jun'16)

Mentors: Pratheek MS (CTO), Vijaykant Nadadur (CEO)

Work Domain: Database Engineering, Web Architectures, Natural Language Processing

Brief: Design, implementation and deployment of a scalable and distributed database for sentiment analysis engine(TexSie). System architecture analysis, core system and performance optimization.

Full Stack Developer: Audegn Design Technologies, Gurugram, India (Dec'15 – Feb'16)

Work Domain: Human Computer Interaction, Deep Learning, Web Architectures

Brief: Designed and developed a platform to assist people (with no prior design experience) in designing posters, flyers, business cards etc. Used Deep Learning to recognize shapes the user is trying to make.

Summer Intern: Samsung R&D Institute, Bengaluru, India (May'15 – Jul'15)

Mentor: Saravana Balaji Shanmugam

Work Domain: Human Computer Interaction, Network Security, Web Architectures

Brief: Designed authentication flow and device registration UX. Developed (& on-device tested) a service to enable open-id authentication (oAuth Protocol) for Tizen devices which will go hand-in-hand with native services for seamless connectivity among Tizen devices.



(Jan'15)

Participant: MIT Media Labs, DI Workshop

Mentors: Anirudh Sharma, Artem Dementyev, Joe Paradiso

Work Domain: Human Computer Interaction, H/w Prototyping, Applied Mathematics, Web Development

Brief: Designed & prototyped a h/w device (wrist band) to automate the transfer of contact-details (triggered via standard handshake), allow meeting-context based contact search. Applied theoretical concepts like Hungarian Algorithms, Contraction Hierarchies etc.

Webmaster: Computer Science & Engineering Society, ISM

(Jul'14 – Jul'15)

Mentor: Dr. Chiranjeev Kumar (Assoc. Prof. & Head, CSE, IIT (ISM) Dhanbad)

Work Domain: Human Computer Interaction, Full Stack Web Development and Design

Brief: Solely responsible for end-to-end design and development of all websites under Computer Science and Engineering Society, Indian Institute of Technology(ISM) Dhanbad.

Webmaster: TEDx ISM Dhanbad

(Aug'14)

Work Domain: Human Computer Interaction, Branding & Design

Brief: Responsible for design (print, web) and web development.

Web-developer: Srijan'14, Annual Cultural Festival at IIT (ISM) Dhanbad

(Feb'14 – Mar'14)

Work Domain: Human Computer Interaction, Branding & Design

Brief: Responsible for design (print, web) and web development.

Webmaster: Concetto'13, Annual Techno-management Festival at IIT (ISM) Dhanbad

(Oct'13 – Nov'13)

Work Domain: Human Computer Interaction, Web Design & Development

Brief: Successfully designed & developed a website which could be operated using **Webcam (Gesture Based User Interface)**, **first of its kind**. The website recorded **180,702 hits** in the period (source: Google Analytics).

Summer Trainee: Hewlett Packard Education Services

(May'13 – Jun'13)

Work Domain: Web Development

Brief: Professional industry project based training for PHP. Youngest trainee in the batch, 2nd highest scores, graded A+.

Summer Trainee: Appin Technology Labs

(May'12 – Jun'12)

Work Domain: Network Security

Brief: Training on Network Security, Cryptography and Penetration Testing.

Research Experience:

Research Fellow: Indian Institute of Technology (ISM), Dhanbad

(Jul'14 – Apr'16)

Mentor: Dr. Chiranjeev Kumar (Assoc. Professor & Head)

Work Domain: Machine Learning, Genetic Algorithms, Reinforcement Learning

Brief: Worked on applications of Reinforcement Learning methods for server architectures. Also worked on WebSocket protocol and Elliptic Curve cryptosystems for Network Security.

Research Fellow: Indian Institute of Technology (ISM), Dhanbad

(Jul'13 – Apr'14)

Mentor: Dr. Arup Kr Pal (Assistant Professor)

Work Domain: Data Mining (Content Based Image Retrieval), Machine Learning, Computer Vision

Brief: Developed a CBIR engine capable of finding similarity score for images using Huffman Coding, Image Segmentation. Developed a similar-image Recommendation System over the engine.

Publications (2, accepted):

Chawla M., Singh K., Kumar C. "Attitudinal Data based Server Job Scheduling using Genetic Algorithms" in 9th International Conference on Contemporary Computing 2016, *IEEE*

Category: Full Research Paper and Demo

Other: Acceptance Rate: 26%



Chawla M., Mishra S., Singh K., Kumar C. "A Comparison of Data-Exchange Mechanisms for Real-time Communication" in International Journal of Rough Sets and Data Analysis (Special Issue on High Performance Computing and its Applications)

Workshop Teaching/ Advisory Role:

Instructor: Gave lectures and reviewed projects in **Nodeschool.io** (Dhanbad Chapter).

Instructor: Instructor for Algorithms, Web Architectures, UI Design & Artificial Intelligence at **Cyber Labs**.

Projects:

Skybot: Job Scheduling in Single Threaded Servers using Genetic Algorithms and deployment using Supervised Learning Techniques.

DigiBin: a smart dustbin to deal with widespread apathy towards cleanliness in India.

Smart Handshake: Recreating phonebook experience via standard handshake.

BuzzLogs: A P2P based team communication tool with a new abstraction of managing group activities.

A.L.I.C.E.: A browser based Question Answering bot for smarter web surfing.

I.R.I.S (Smart Mirror): Augmentation of personal assistant in a mirror for smarter living.

DigiBoard: A Poly (methyl methacrylate) (PMMA) based notice board that draws attention toward imp. notices.

DINO: AI in Google Chrome dinosaur game.

Lack of space here, for details & demo videos, Please refer www.mohitchawla.in/code.php .

Skills:

Programming: C, C++, Python, Java, Matlab (for Computer Vision).

Web Design & Dev: HTML, CSS, PHP, JavaScript, jQuery, Java Spring, Node.js, WebRTC

OS Platforms: Windows, Linux and Mac OSX.

Interaction Design & Multimedia: Paper prototyping, Wire-framing, Mockups using Omnigraffle, Adobe Photoshop & Illustrator.

Fabrication and Prototyping: Electronics Prototyping, 3D printing, Basic {Carpentry, Fitting and Welding}.

Extra Curricular Activities & Achievements:

Sports Achievements

Ranked 4 in **Open Gym Championship 2014**.

Participated in **Weight Lifting Championship** at Parakram 2014, ISM (Rank 4).

Other Achievements

Among top 5% of the batch (CSE, IIT (ISM) Dhanbad).

Finalist, Tech Quiz, Samsung R&D Institute, Bengaluru.

Founded an initiative enabling students to implement their skills via projects & solve problems prevalent in society.

Founded a publication to enable students learn esoteric concepts related to CSE in an easy way.

One of 100 students selected for Google CFI from India.

One of 280 students of the country selected by MIT MEDIA LABS to enroll in MITML DI-2015.

Awarded 2nd prize in Robo Wars, Conchetto-2013

Successfully developed an **Autonomous Robot** capable of following a marked track and detecting number & color(s) of objects nearby.

Scored **100%** in **Google Power Searching Workshop Cum Exam**.

Secured **All India Rank 4,928** (General Category) in Indian Institute of Technology Joint Entrance Examination 2012.

Awarded by Indian Medical Association for Academic Excellence in 2010.

Other Interests

Free associative writing, archery, teaching.

Declaration: I hereby declare that all the details furnished above are true to the best of my knowledge and belief.

Mohit Chawla