

# Sahil Punchhi

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## PROFILE

- **Master of Information Technology** (majors: Data Science, AI) student at UNSW with a distinction average
- Strong **predictive modelling** and **machine learning** experience with 2 years at ICICI Bank, India
- Programmed and developed new tradable assets for the Global Markets Group at **J.P. Morgan**
- **MITACS Globalink Scholar** (2015) at UNB, Canada for an academic exchange research project
- **Australian professional experience** with JB HiFi in commercial operations

## EDUCATION

- Master of Information Technology (majors: Data Science, AI)** Jul 2018 – May 2020  
University of New South Wales, Sydney, Australia; **WAM 82/100**
- Awarded UNSW Future of Change Scholarship for the postgraduate program in IT Jul 2018
- Master of Science (Economics) and Bachelor of Engineering (Mechanical)** Aug 2011 – May 2016  
BITS Pilani, Pilani, India; **WAM 8.97/10**
- Awarded 2<sup>nd</sup> prize for the project 'Collaborative consumption' in the technical fest Apogee Mar 2015

## RELEVANT PROJECTS AND EXPERIENCE

- Laboratory Earthquake Prediction** Jun 2019 – Jul 2019
- Predicted the time that an earthquake will occur in a laboratory test using gradient boosting framework (XG-Boost and Light-GBM); The laboratory test applies shear forces to a sample of rock containing a fault line and if the physics are ultimately shown to scale from the laboratory to the field, billions of dollars could be saved in infrastructure
- Task Scheduler for an Embedded System** Feb 2019 – Apr 2019
- Designed a feasible schedule for the task set for an embedded system such that all the timing constraints are satisfied using binomial heap-based priority queue
- Data Analyst, Manager** Jul 2016 – May 2018  
**ICICI, Business Intelligence Unit, Hyderabad, India**
- Engaged with various business teams to provide analytical solutions and insights to complex problems; Delivered key projects in predictive modelling, machine learning and text mining
    - **Automatic Text Classification:** Classified employees into 4 categories to obtain behavioural characteristic trends and sentiments through document classification and sentiment analysis
    - **Family Members Identification:** Identified accounts of family members of certain set of customers on the basis of address match using Jaccard distance, which were added in monitoring for frauds
    - **Credit and Market Risk:** Developed pooling logic for retail asset portfolios with respect to two different dimensions of risk: Likelihood of default (Probability of Default i.e. PD) and Expected recovery (Loss Given Default i.e. LGD); Assessed factor sensitivity of portfolios using measures like modified duration in case of fixed income products and market value in case of equity
  - Promoted in 1 year from 'Management trainee' to 'Manager-I' for exemplary performance Jul 2017
  - Awarded for the project 'IFRS9 Expected Credit Loss Estimation' in the category 'Intelligence' Oct 2017
- Analyst** Jan 2016 – Jun 2016  
**J.P. Morgan Services, Global Markets Group, Mumbai, India**
- Developed trading strategies for exotic options and derivatives on python-based platform "Athena"
  - Analysed global markets for different trading instruments and their percentage share of profits

## ADDITIONAL EXPERIENCE

- Teaching Assistant – Foundations of Computer Science** Feb 2019 – Present

**University of New South Wales, Sydney, Australia**

- First point of contact for questions pertaining to proofs of complex mathematical algorithms
- Assist senior faculty to evaluate and grade students through feedback on classroom performance

**Sales Representative****Nov 2018 – Jan 2019****JB HiFi, Sydney, Australia**

- Set new records for sale and number of customers served; including value generated from upselling
- Provided after sales support, guided clients to improve user experience

**MITACS Globalink Intern****May 2015 – Aug 2015****University of New Brunswick, Fredericton, Canada**

- Worked under Dr. Victoria Chester on 'Kinematic multi-segment foot models' for gait analysis
- Cultural exchange program to get international exposure and work with students from other countries

**EXTRACURRICULAR ACTIVITIES****Team Leader, UNSW Hero Program****Dec 2018 – Feb 2019**

- Pitched an innovative service improvement project and participated in various industry workshops

**Schooling Operations Head, National Service Scheme****Aug 2012 – Mar 2018**

- Spear-headed operations at NSS Night School and inculcated community development approach

**Joint Coordinator, Creative Activities Club, fine arts society, BITS Pilani****Aug 2013 – May 2015**

- Organized workshops and raised sponsorship for 4 events with 800 guests in cultural fest (OASIS)

**CERTIFICATIONS AND CONFERENCES****Machine Learning training by Math Logic****Apr 2017**

- Focused on machine learning and deep learning models that can lead to 10%-30% performance improvement over traditional modelling paradigms in a variety of use cases

**Harvard US-India Initiative Conference****Jan 2017**

- Addressed some of India's most pressing social, economic and environmental issues in a student run organization that aims to create a dialogue between Indian and American youth

**Chartered Financial Analyst, Level-1****Dec 2016**

- Professional designation received from the CFA institute, formerly AIMR that measures the competence and integrity of financial analysts

**TECHNICAL SKILLS**

- Python, R, C, Java, Scala, SQL, SAS, VBA, Microsoft Office (Word, Excel, PowerPoint and Outlook)

**REFEREES**

Dr. Michael Thielscher  
Professor, UNSW

Kaunteya Guha  
Chief Manager, ICICI

Abhinav Krishna  
Equity Sales Associate, J.P. Morgan