

RASHMI NAGPAL

Tech Leaders Program — Plaksha University & SCET, UC Berkeley

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EDUCATION

- **Plaksha University & SCET, UC Berkeley** Gurugram, India
Tech Leaders Fellowship in AI Aug 2019 - Jul 2020
 - Relevant Courses: *Artificial Intelligence at Scale, Mathematics for Artificial Intelligence, Data Science and Machine Learning II, Advanced Machine Learning*
- **Indraprastha Institute Of Information Technology Delhi** Delhi, India
B.Tech. in Computer Science and Engineering Jul 2014 - May 2018
 - Relevant Courses: *Topics in Adaptive Cybersecurity, Natural Language Processing, Data Warehousing, Design and Analysis of Algorithms, Data Mining*

PUBLICATIONS & REPORTS

- “FlavorDB: a database of flavor molecules” [PDF]
Published journal in Nucleic Acids Research, PubMed 2017
- “Extracting fairness policies from legal documents” [PDF]
Available as arXiv report : 1809.04262

WORK EXPERIENCE

- **Research Affiliate** July 2021 – Present
[University of San Francisco, California, USA](#)
 - Working under the guidance of Dr.David Guy Brizan to determine the covariance of gender and speech styles and analyzing from a linguistics perspective.
 - Developed a framework to extract features from Switchboard Dialogue dataset.
- **Software Engineering Intern** Sept 2020 – Present
[LoopUp LLC, San Francisco, California, USA](#)
 - Developed .NET application for LoopUp users in a video conferencing application used in house.
 - Created SQL server data tables and stored procedures to efficiently gather meaningful data.
 - Utilized ReactJS and responsive web-design practices to create webpages in METIS, an internal tool.
 - Participate in peer-code reviews and aid in bug-fixes, feature enhancements and production issues.
- **Data Science Intern** Mar 2020 – Jun 2020
[SecondWrite LLC, Baltimore, Maryland, USA](#)
 - Built malware analysis tool from Google’s VirusTotal API to analyze complex PDF files dataset.
 - Achieved detection rate of 94.2% with 0.59% FPR and reduced turnaround time by 30%.
- **Data Science Intern** Feb 2020 – Apr 2020
[Nagarro, Gurugram, India](#)
 - Built a real-time ML based salary prediction model to aid in recruitment of potential employees.
 - Designed user-interface using React, Typescript and containerized model using Docker to deploy into production.
- **Software Engineer** July 2018 – July 2019
[Nucleus Software Exports Ltd, Noida, India](#)
 - Productionized “Face Recognition” and “Behavioral Analytics” models and scaled the backend to handle access of all the employees at the company.
 - Developed CI/CD pipeline using Jenkins and SOAPUI to test fully functional endpoints.
- **Directly Responsible Individual** Nov 2016 – Mar 2017
[Stanford Scholar Initiative](#)
 - Led 2 teams of 20+ individuals and curated content in form of research talks (videos) to make research papers from top conferences in AI/ML comprehensible for all.

ACADEMIC PROJECTS

- **Distilling Knowledge From BERT Into Simpler Machine Learning Models**[\[LINK\]](#)
 - Investigated the potential of neural network distillation to interpret large black box models.
 - Proposed a simple and effective compression pipeline that transfers knowledge from BERT to simpler models eg: SVM, Decision Trees, Logistic Regression and achieved an accuracy of 87%.
- **Speech to Text Summarization**[\[LINK\]](#)
 - Developed a summarization system to generate text summaries from a audio dataset as input.
 - Implemented sequence-to-sequence model with attention to generate abstractive summary.
 - Used BLEU(BiLingual Evaluation Understudy) to evaluate quality of text and achieved 70% score.
- **Extracting Fairness Policies from Legal Documents**
 - Surveyed the literature on the Fairness, Accountability Transparency in machine learning.
 - Extracted fairness policies from complex legal documents based on semantic relatedness.
 - Experiments revealed how classical wordnet-based similarity and vector-based similarity differ in addressing this task.
- **Malware Detection Engine**[\[LINK\]](#)
 - Developed a malware detection solution to classify portable executable files as benign or malicious.
 - Performed exploratory data analysis using machine learning models like XGBoost, RF & SVM.
 - Achieved an accuracy of 96% with a detection runtime of 3 seconds allowing for early remedial action using XGBoost model.

AWARDS & SCHOLARSHIPS

- **Full-track speaker, 4Developers Conference, Poland** [\[LINK\]](#) - Presented a talk on the "Domain-driven Micro-services Architecture in Go" which took place virtually from 27th October to 28th October'21.
- **Virtual Grace Hopper Celebration, USA 2021** - Awarded full scholarship by AnitaB.org foundation to attend largest conference for women in technology.
- **Full-track speaker, GopherCon Russia, Moscow, Russia 2021** [\[LINK\]](#) - Selected as the only woman speaker for full track talk at GopherCon Russia 2021 which took place virtually from 23rd April to 25th April'21.
- **Silicon Valley Internship Program, San Francisco CA, USA 2020** - Only woman selected globally for the prestigious internship program.
- **Full-track speaker, FOSDEM Go Devroom, Brussels BEL, Europe 2020** [\[LINK\]](#) - Awarded full scholarship by GoBridge Foundation. Gave talk on the topic titled "Deep Learning for Gophers".
- **Lightning talk speaker, FOSDEM Go Devroom, Brussels BEL, Europe 2019** [\[LINK\]](#) - Fully sponsored by Women Who Go Foundation. Gave talk on the topic titled "Go for Javascript developers".
- **HashiConf, Amsterdam NL, Europe, 2019** - Among 6 recipients selected globally by HashiCorp for full scholarship to attend this conference.
- **Kubecon & CloudNativeCon, Seattle WA, USA 2018** - Among 15 recipients selected globally by Linux Foundation for full scholarship to attend this conference.
- **GopherCon, Denver CO, USA 2018** - Among 6 recipients selected globally by Women Who Go Foundation for full scholarship to attend this conference.
- **Harvard US-India Initiative, New Delhi, India 2017** - Awarded scholarship along with 250 recipients to attend this conference.

SKILLS

- **Programming Languages** - Python, C#, Java, Go, ReactJS, Typescript
- **Tools and Libraries** - TensorFlow, Sklearn, Pandas, Docker, Rest API, MySQL, Spark

POSITIONS OF RESPONSIBILITY

- **FOUNDER, Women Who Go Delhi** - Built an inclusive community of 250+ women in tech from diverse socio-economic backgrounds in Delhi/NCR to spread awareness of Golang, a programming language.
- **CORE ORGANIZER, Women Who Go** - Have been promoted to help setup Women Who Go chapters globally.
- **WIT HACKATHON LEADER : WIT INDIA FORUM** - Responsible for organizing India's largest hackathon.