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

 \circ Developed framework to determine the covariance of gender & speech styles of individuals.

Software Engineering Intern

Sept 2020 - Present

LoopUp LLC, San Francisco, California, USA

- o 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

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 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

- $\bullet \ \ Distilling \ \ Knowledge \ \ From \ \ BERT \ \ Into \ \ Simpler \ \ Machine \ \ Learning \ \ Models [LINK]$
 - 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]
 - \circ Developed a summarization system to generate textual summaries from a audio dataset and achieved 70% BLUE score.

• Implemented sequence-to-sequence model with attention to generate abstractive summary.

• 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.
- o 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 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.