

SUMIT KUMAR

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EDUCATION

Master of Science in Analytics, GPA - 4.0 The University of Chicago, Chicago, Illinois, USA	Dec 2018
Bachelor of Computer Science and Engineering, GPA - 3.8 Maharshi Dayanand University, Rohtak, India	July 2010

WORK EXPERIENCE

Senior Machine Learning Engineer - Meta <ul style="list-style-type: none">Forecasting Meaning Content Engagement, Producer ValueInjecting Exploration into Recommendations Feed	Aug 2022 - Present
Senior Machine Learning Engineer - TikTok (Recommendations Team) <ul style="list-style-type: none">Created "Similar Videos" on Web App	Feb 2022 - Aug 2022
Research Scientist II - Alexa Communications AI, Amazon <ul style="list-style-type: none">Detecting and rejecting false invocation utterances for Alexa Communications orgLearning to rank contact names for Alexa CommunicationsImproving Alexa Automatic Speech Recognition for contact names in US-English localeContextual point-of-view conversion for Alexa messagesI am also a member of the Alexa Comms ML Samurais team where I help other teams in developing their Machine Learning based solutions by hosting consulting sessions, modeling peer reviews, monthly newsletters etc.	Jan 2019 - Feb 2022
Software Development Engineer II - Amazon Fire TV, Devices Org <ul style="list-style-type: none">Developed an algorithm for improving the station matching process on FireTV devices.	Aug 2018 - Dec 2019
Research Computing Center, The University of Chicago Student Research Assistant (Part-time) <ul style="list-style-type: none">Creating data visualizations and Python backend for university hosted portals, based on Django/Flask Python frameworks.	Nov 2017 - Jul 2018
Samsung Research Institute, Noida, India Lead Software Engineer, Advanced Technology R&D Engineer <ul style="list-style-type: none">Directional Audio recording via Beamforming & Blind Source Separation via Independent Component Analysis.Developed Quick Network Access (QNA) algorithm for mobile handsets in Roaming Area.Worked on Smart Power Optimization Techniques (SPOT) project for improving the power footprint of mid and low segment handsets.Lead Networking Layer team for Call Drop Reduction Task Force (CDR), pan-India project.	Nov 2012 - Aug 2017
Aricent Group, Gurgaon, India Software Engineer, NSN unit <ul style="list-style-type: none">Radio and Core Network Emulator development; client: Nokia Siemens Networks, Finland	Jan 2011 - Nov 2012

TEACHING EXPERIENCE

Graham School, The University of Chicago Course Developer and Instructor for the online DABP14000, Advanced Analytics and Machine Learning (http://bit.ly/MyUChicago) <ul style="list-style-type: none">I created and taught this course in the online "Data Analytics for Business Professionals" certificate program at UChicago.	Jul 2018 - Present
Professional and Continuing Education, The University of Washington Course Instructor for the Py230, Internet Programming with Python. (http://bit.ly/UWPython)	Jul 2018 - Present
Amazon Machine Learning University, Seattle - Washington Teaching Assistant for the multiple ML University courses.	Nov 2018 - Present

ACADEMIC PROJECTS

- Industry partner - Uptake:** Object and infrastructure detection using Deep Learning on SpaceNet remote sensing imagery data
- Recommendation Algorithms based on user data collected from meetup.com API.
- Android app: Image classifier (CNN) based on transfer learning using Tensorflow on Stanford's cars dataset.

PERSONAL PROJECTS

- UC Grabber, Google Chrome plugin to bulk download course content from university portal for University of Chicago students.
- Slack Bot: Leo is a Slack chat-bot that utilizes Google's URL shortening and AWS's SNS services.

PATENTS

- "Method and System for Deferred Data Communication". (<http://bit.ly/sumitpatent01>) (international)
- "Method and System for State Preservation of an Application in a Computing Device".(international)(<http://bit.ly/sumitpatent02>)
- "Method and System for managing context across applications". (international)
- "Method and system for achieving directional audio", "Method and Device for Contextual execution of an App" etc.

ACHIEVEMENTS & AWARDS

- Winner of the "Best Hack for Social Good" (Sponsored by JPMorgan Chase), Award at the Uncommon Hacks, 2018. (bit.ly/2018uc)
- Received multiple 'SRI-N Innovator', 'Inventor of the Month' and 'Employee of the Month' awards at Samsung Research Institute.

SKILLS AND LANGUAGES

Technical: Data Structures, Algorithms, CVS/Git/Perforce, GDB, Unix/Linux, Machine Learning, Deep Learning, NLP.

Programming Languages: C, C++, Java, Python (including Django and Flask), R, MySQL, Neo4j, JavaScript.