


Rattandeep Singh

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EDUCATION

- **Columbia University, Columbia Engineering** New York, NY
MS in Computer Science, Machine Learning Track *Expected Dec 2024*
- **Netaji Subhas Institute of Technology, Delhi University** New Delhi, India
Bachelor of Engineering - Computer Engineering; GPA: 9.475 (Department Rank: 1) *Aug 2015 - Jul 2019*
Courses: Data Structures, Analysis Of Algorithms, Databases, Operating Systems, Networking, Artificial Intelligence

TECHNICAL SKILLS

- **Languages and IT Constructs:** C/C++, Swift, Python, Shell, Java, Javascript, System Design, Linux, Groovy, SQL
- **Tools/Technologies:** Jenkins, Keras, Tensorflow, CoreML (iOS), Spring Boot, React Native, NodeJS, Kubernetes, Docker

INDUSTRY/RESEARCH EXPERIENCE

Intuit Bengaluru, India

Senior Software Engineer — Mint and TurboTax

Aug 2022 - Aug 2023

- **ItsDeductible - Smart Receipt Extraction:** Engineered and executed a cutting-edge solution utilizing OCR, PII Guardrails, and Generative AI to extract donation details from unstructured receipts, slashing user time by 50%
- **Global Mobile Tax Platform:** Architected solution to decompose logging, analytics and crash monitoring for TurboTax
- **TurboTax - On-Device Classification:** Deployed an on-device ML system that accurately classifies tax documents, eliminating the need for backend resources and improving the user experience with real-time feedback
- **Transactions Monolith to Microservice:** Contributed to data migration & designed new CRUD APIs with 99% parity

Software Engineer — Mint

Jul 2019 - Jul 2022

- **Mint Native to TurboTax Online:** Built integration in Mint to help users easily file taxes, generating \$6.4M revenue
- **iOS Design System Library:** Developed design system library with 50+ components & integrated with Storybooks
- **AI Budget Recommendation System:** Built system to predict minters spending and provide insights to create or update budgets, experiment successful with 130 index
- **Mint iOS Build Platform:** Launched automated pipeline to build & deploy iOS app, increasing release velocity by 2x

Software Engineering Intern — Consumer Group, Site Reliability Engineering

May 2018 - Jul 2018

- **Cloud Raider:** Developed and open-sourced Fault Injection Framework for Automated FMEA (Used by 100+ services)

Netaji Subhas Institute of Technology

New Delhi, India

Student Researcher

Jan 2019 - May 2019

- **Advisors:** Prof. M.P.S. Bhatia, Prof. Sushama Nagpal
- Worked on generation of human face images from textual descriptions using ArtistGAN
- Devised model to calculate trust and relationship index in social networks

Coding Ninjas, Pitampura

New Delhi, India

Teaching Assistant, Problem Setter & Content Writer — DS & ML Course

Dec 2016 - Apr 2018

- Assisted a class of 200+ students for both online and offline courses and created notes on Jupyter notebook for ML course

PROJECTS

- **AppEye:** Designed and open-sourced an iOS app size scanner that generates maps for files and assets. It was integrated into mobile CI/CD pipeline to provide actionable insights for improving app size. These insights led to a 20% reduction in the Mint iOS app's size. Tech: iOS, Shell, HTML (Jan 2022) [code]
- **ArtistGAN: Generation of Human Face Images using Text (B.E. Thesis Project):** Created a novel architecture for generation of human face images from textual descriptions. Combination of text encoder, conditioning augmentation, GANs and feature tuning is used to produce high quality images. Tech: Python, PyTorch, Pillow, NLTK (June 2019) [code]
- **AI Foodie: Food Dishes Recipe Recommendation System:** Prototype of application which scans the refrigerator image, recognises food ingredients & gives a dish recommendation. Tech: Android, Rails, SQLite, OpenCV, Tensorflow (Nov 2017)
- **Edulytics: Online Course Management System:** Platform for students and teachers to facilitate e-learning in colleges, automates feedback rating and course selection process for students and uses ML to set personalized assessment for each student based on performance. Tech: Python, Flask, Scikit-learn, Javascript, Bootstrap, MySQL (Dec 2018) [code]

VOLUNTEER EXPERIENCE

- **Community Lead - Sustainability Champions, Intuit:** Revitalized sustainability team in Intuit India and partnered with NGOs to spearhead impactful climate awareness campaigns and green initiatives, galvanizing over 200 employees [2021-2023]
- **Great Place to Work Ambassadors Community:** Organize GPTW and D&I engagement activities [2020-2023]
- **We Care & Give Back:** Contributed to wheelchair building and organized cleanliness drives in Bengaluru [2019-2023]
- **Shiksha Samiti & Anmol NGOs:** Participated in food drives, organized plantation drives, and taught basic hygiene to underprivileged women and children [2019-Present]
- **President & Web Developer - CollegeSpace, NSIT:** Initiated revamp of the most frequently visited Socio-Academic portal of NSIT by leading a new team. Mentored junior society members to excel in job interviews [2016-2019]
- **Student Mentor, NSIT:** Mentor new students under Student Mentorship Programme by The Students Council [2018-2019]