Prahaladh Chandrahasan

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Education

Carnegie Mellon University — Pittsburgh, PA
Master's in Information Technology Privacy Engineering — Dec 2025
Relevant Coursework: (Foundations of Privacy, Privacy Policy, Law and Technology, Machine Learning, Information Security, Privacy and Policy)

Experience

Bank of America Continuum India — Chennai, India
Software Engineer — Jul.2022-Present
- Automated End-to-End payment flows from initiation to clearing for the bank's transformation to Real-Time Payments.
- Developed **Tosca** UI and API modules that are reusable across multi-regional payment landscapes.
- Identified Critical defects, saving the bank around 5 million dollars.
- Co-ordinated releases by testing production defect fixes across various environments
- Introduced various process automation through **Tosca** and **Java** saving the bank around 1000+ manhours
- Reviewed 10+ potential patentable ideas across the GCIBT sphere

RedHat — Bangalore, India
Software Engineer Intern — Jan.2022-Jul.2022
- Worked with the RedHat Fuse team, contributed to and maintained the Hawtio open-source project
- Pushed two features ENTESB-18633 and ENTESB-18785 in the latest release: 7.11
- Developed UI for the Hawtio project using **AngularJS** and **Patternfly** framework
- Introduced **GitHub actions** to the entire Hawtio project which automatically closes old issues

Stealth — Chennai, India
Federated Learning Intern — Oct.2021-Nov.2021
- Implemented various Federated Learning algorithms from research papers using **Pytorch**
- Implemented differential privacy using the **Pysyft** library
- Designed and implemented experiments for testing out various hypotheses

Cloudanix (YC S21) — Chennai, India
Software Engineer Intern — Mar.2021-Aug.2021
- Developed cloud compliance rules for AWS accounts using the **Boto3 Python SDK**
- Mapped service provider-specific conformity rules to the controls that specify security and governance requirements

Manipal Institute of Technology — Manipal, India
Undergraduate Researcher — Jan.2021- July 2022
- Worked on Colorectal Cancer prediction using computer vision and Federated learning under Dr. Poornalatha G.
- Worked on Crowd Scene classification using computer vision and machine learning under Dr. Karunakar Kotegar
- Worked on building autonomous drones with in-situ computer-vision capabilities as part of AeroMIT under Dr. Kamlesh Kumar

Engineering Projects

Covid-19 Chatbot | Python, Rasa — Aug.2020
- Created a Chatbot using the **Rasa** framework giving basic information and state-wise statistics on the COVID-19 pandemic
- Defined intents and created dialogue flows for handling all types of conversation
- Fetched real-time data from an API using **Python** for displaying real-time statistics
- Hosted the bot using **ngrok** in telegram

Credit-Card Fraud Detection | Python, Pytorch, Sci-kit learn, GAN's, Flask — Jan 2022
- Found an optimum algorithm for identifying fraudulent credit card transactions for creating a privacy-preserving FDS
- Used various statistical methods to analyze the data and handle the data imbalance
- Used custom **GANs** for generating synthetic training data for handling the class imbalance
- Applied Federated averaging to simulate a multi-agent training scenario

VTOL Tiltrotor | Computer Vision, Deep Learning, Flight Dynamics, ROS — Oct.2019-Feb.2020
- Designed an autonomous aircraft for disaster relief response to locate people and provide them with medicines
- Worked on the **object detection** & tracking algorithm, and interfaced the sensors with the flight controller firmware using **ROS**
- Simulated the complete setup on ROS **Gazebo**.
- Brainstormed an efficient design that has the benefits of a multi-rotor and a fixed-wing aircraft.

Awards and Achievements

- Received the Arpit Jain Best Researcher Scholarship for FY-2022-23.
- Filed a patent on Payments Fraud detection within the first year of my professional journey.
- Bagged 2nd place (Across India) in BRICS Future Skills Aerial robotics organized by WorldSkills Russia.

Publications

- **Motion pattern-based crowd scene classification using histogram of angular deviations of trajectories**. In The Visual Computer (2022).
- **Federated Learning for Colorectal Cancer Prediction**, in 2022 IEEE 3rd Global Conference for Advancement in Technology (GCAT), 2022
- Distributed, Privacy-Preserving, Payments Fraud Detection System. **Application No.18/239,214.** [Patent]

Skills

Languages: Advanced: C, C++, Python | Intermediate: Java, SQL | Basic: Bash, JavaScript
Technologies: Advanced**:** TensorFlow, Pytorch, GIT, Tricentis Tosca, Boto3 | Intermediate: PySyft, Opacus, Rasa, Flask