

Ajinkya Prabhu

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EDUCATION

Carnegie Mellon University <i>Masters in Computer Systems and Mobile and IoT Engineering</i> <ul style="list-style-type: none">Coursework - Computer Systems (15-513), Embedded Systems*, Networking and the Internet* (15-641)	Pittsburgh - Pennsylvania May 2022 – Dec 2023
Vellore Institute of Technology <i>Bachelors in Electronics and Communication Engineering</i> <ul style="list-style-type: none">GPA - 9.1/10.0	Vellore - Tamil Nadu July 2016 – June 2020

SKILLS

Programming Languages: Python, Java, Scala, C, C++, SQL, Rust, MATLAB
Technologies: Git, Arduino, ROS, LaTeX, Spark, Docker, Kubernetes, TensorFlow, PyTorch, Hadoop, Linux
Languages: English, Hindi, Marathi

WORK EXPERIENCE

BlackRock <i>Analyst (Software Engineer I)</i> <ul style="list-style-type: none">Collaborated with a team of five software engineers to develop a data lake called RBOR (Regulatory Book of Records) with schema management and automatic ingestion on the Cloudera Data PlatformIncreased adoption of RBOR platform across BlackRockSpearheaded ingestion of securities data; ingested 600GB/week with 293 columns (100M rows)Boosted batch query performance by an order of magnitude	Gurugram, India Jan 2020 – July 2022
Mantra Labs <i>Software Engineering Intern</i> <ul style="list-style-type: none">Analyzed I2S protocol in its application to a solid-state microphone on the BeagleBone BlackDevised a facial recognition system to recognize unknown faces in security cameras using FaceNet algorithm	Bangalore, India May 2018 – June 2018

PROJECTS

Dynamic Memory Allocator GitHub <ul style="list-style-type: none">Developed a malloc package implementation that achieved a peak performance of 74% utilization while maintaining a throughput of ~ 9000Kops
Tiny Shell GitHub <ul style="list-style-type: none">Implemented a shell application using UNIX fork and signal handling
HTTP Proxy GitHub <ul style="list-style-type: none">Designed a concurrent web proxy with thread-safe caching between concurrent requests
Contributor - Vega GitHub <ul style="list-style-type: none">Developed distributed set subtract operation in Rust

RESEARCH

ITC <i>Student Researcher</i> <ul style="list-style-type: none">Collaborated with a team of 5 students to develop a prototype that detects defects in incense sticksDeveloped a Convolutional Neural Network in tandem with an image processing pipeline for object detection and classificationAchieved an accuracy of 82% while maintaining throughput of five sticks per second	Vellore Institute of Technology - Vellore May 2019 – July 2019
Creation Labs - Team AutoZ <i>Student Researcher</i> <ul style="list-style-type: none">Collaborated with a team of 10 students to develop an autonomous mobile robot to compete in IGVC competitionLed development of sensor localization and electrical drive subsystem	Vellore Institute of Technology - Vellore Sept 2018 – Nov 2019

PUBLICATIONS & PATENTS

Publication: Image Compression and Reconstruction Using Encoder-Decoder Convolutional Neural Network - Prabhu A., Chowdhary S., Narayanan S.J., Perumal B.
Patent: A scanning device for inspecting and sorting high aspect ratio objects and method thereof - N202041047428

AWARDS & ACHIEVEMENTS

Merit Scholarship: Awarded merit Scholarship for exceptional academic performance for 2 consecutive years