

CHAITANYA BAPAT

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EXPERIENCE

Meta [formerly Facebook]

London, UK

Senior Software Engineer (IC5)

Aug 2022 - Present

- Providing live-chat support to advertisers & high-value user segments on Facebook & Instagram to resolve their account access issues which unblocks revenue of **\$1.5 million per year**
- Leveraging bi-directional machine translation model to expand live-chat coverage to over 50 high-frequency languages thereby increasing Serviceable Obtainable Market from **15%** to **56%**

Software Engineer (IC4)

July 2021 – Jul 2022

- Drove the launch for additional account recovery methods for locked out customers on Android & iOS resulting in a **11x** jump from a previous **80/day** to **1000 recovered accounts / day**

Amazon Web Services

Palo Alto, CA, USA

Software Development Engineer 2 (L5)

Apr 2021 – July 2021

- Contributed to an optimized gradient averaging technique for faster distributed training on AWS infrastructure.

Software Development Engineer (L4)

July 2019 – Mar 2021

- Elected as a Committer to Apache MXNet, an open-source deep learning framework [[Announcement](#)]
- Built MXNet CI-bot that lead to **\$240k** annual savings for the group [[Design](#)][[Demo](#)]
- Enabled distributed model training with Apache MXNet and Horovod on AWS Sagemaker that reduced **26 hour** end-to-end training time to **8 hours** ($\approx 70\%$). [[AWS ML Blog 1](#)] [[AWS ML Blog 2](#)]
- Developed a 2D Transpose kernel with **47%** speedup by optimizing L1 cache utilization and vectorized operations

Deep Learning Intern

Sept 2018 – Dec 2018

- Designed and implemented new user-critical APIs - Debug operators, Constant initializer for NDArray
- Developed a random integer sampling operator that gave **17x** speed-up over the equivalent Numpy library method

Verizon Connect

Atlanta, GA, USA

Software Engineer Intern

May 2018 – Aug 2018

- Built an ensemble model for Predictive Maintenance of automobiles based on Diagnostic Test Codes (DTC)
- LSTM-based model ingested time-series data and performed well with **79.2%** precision

EDUCATION

Georgia Institute of Technology

GPA: **3.63/4**

Atlanta, GA, USA

Masters in Computer Science, Machine Learning

Aug. 2017 – May 2019

University of Mumbai

CGPA: **8.41/10**

Mumbai, MH, India

Bachelor of Engineering in Computers

Aug. 2013 – May 2017

PROJECTS

Rapport – Interactive, Patient-centered Radiology Reports | [Demo](#)

Aug 2017 – Dec 2017

- Annotated reports with Lay Language definitions using Natural Language Processing (Apache cTAKES)
- Visualized 3D human body models using BioDigital API for explaining complex anatomical concepts

Smart Locks Re-engineered: Securing IoT devices using Cryptography and Steganography | [arXiv](#)

Aug 2016 – May 2017

- Designed the Smart Lock using the Raspberry Pi 3 Model B, capable of ensuring secure locking system
- Leveraged BLE protocol to mitigate the vulnerabilities like Man-in-the-Middle attack

Skin Image Recognition using RGB, HSV, YCbCr models | [arXiv](#)

Jan 2016 – Dec 2016

- Designed an algorithm for identifying skin pixel from non-skin pixel using the RGB, HSV, YCbCr models
- Applied Linear Regression and Bayesian Classifiers for carrying out Segmentation of Skin Images

TECHNICAL SKILLS

Languages: Python, C/C++, Java, JavaScript, HTML/CSS, R

Databases: SQL (Postgres, MySQL), MongoDB, DynamoDB, Cassandra

Frameworks: Apache MXNet, Tensorflow, PyTorch, Apache Spark, Apache Hadoop

Developer Tools: Git, Docker, Jenkins

Libraries: pandas, NumPy, Matplotlib, D3.js, Tableau