## **Anupam Pokharel**

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## **EDUCATION**

#### **B.S. in Statistics & Machine Learning**

Carnegie Mellon

Dean's List with High Honors in Fall 2020, Spring 2021

3.59 GPA (last two years)

<u>Coursework:</u> Imperative Computation, Functional Programming, Parallel & Sequential Data Structures & Algorithms, Intro. to Computer Security, Distributed Systems, Modern Regression, Advanced Data Analysis, Intro. to Machine Learning, Intro. to Deep Learning, Computer Networks, Parallel Computer Architecture & Programming

## **WORK EXPERIENCE**

#### **IBM** | FULL-STACK SOFTWARE ENGINEER

Austin, TX | Aug. 2022 -

IBM Cloud

• Working as one of three members of a squad tasked with developing new features, addressing problems and requests for improvements, and maintaining operating and security/compliance standards for the CLI of IBM Cloud (and its integration with plug-ins developed by other teams), primarily by way of submitting and providing reviews for pull requests on the program's codebase

#### **IBM** | SOFTWARE DEVELOPER

Poughkeepsie, NY | Feb. - Jul. 2022

Pittsburgh, PA | Graduated Dec. 2021

Competitive Insights (which subsumed CPO from Summer 2021)

- Continued and completed work on Summer 2021 projects
- Led a project on Power Systems: designing a fully automated stack for comparing shared processing adjustments by hypervisor firmware with resource-scaling by Openshift's HPA during erratic load surges created by a suite of bootstrapped applications and virtual user activity profiles that leveraged Summer 2021's work

#### IBM | Back-End Developer Intern

Remote | May - Aug. 2021

Competitive Project Office (CPO) in Cloud and Cognitive Software Division

 Mainly worked on project to benchmark systems orchestrated by Openshift on two architectures – IBM z/Arch. and Intel x86 – during I/O- & CPU-bound workloads (executed using a containerized Flask upload/download microservice for IBM Aspera coded from-scratch), via Javascript code generating variable emulated user activity

# **CARNEGIE MELLON UNIVERSITY** | Undergraduate Teaching Assistant Pittsburgh, PA | Feb. - May 2021 Department of Math

• Led weekly recitations to review course material and co-conducted grading for the Spring 2021 offering of 21-120: Differential and Integral Calculus

### **PROJECTS**

#### NUTR-EZ NUTRITION AID ✓

Project Exhibition (Devpost) PYTHON3, HTML | SEPT. 2020

Leveraging statistical inference and ML techniques, this nutrition tool – hosted on a localhost web server developed from scratch – generates personally-tailored, profile-specific meal recommendations that adapt to user approval or critique

PARALLELIZED INFERENCE ON RNNS Project Exhibition (GH Pages) C++, CUDA, BASH | DEC. 2021

A project that explores the speedups attainable by parallelizing some parts of inference- time Recurrent Neural Network (RNN) computations, at varying extents of compromise on accuracy

### SKILLS

**Languages:** C++, C, Python (frequent work Numpy, Pandas, Flask, Requests, OpenCV, and PySimpleGUI libraries), Golang, Java, Javascript, Intel x86 Assembly, Standard ML of NJ, R/SQL (for collating and querying large datasets)

**Technologies and Professional Tools:** Git and Github, AWS (EC2, mainly for GPU-accel. model-training), Docker and Dockerhub, Setup and Use of Hypervisors (e.g. PowerVM and z/VM), K8s and Openshift (esp. for automated architecting with CLI)

**Conceptual and Technical Proficiency In:** Hardware virtualization, Networking protocols and security, RESTful principles and API design/use, Data structures & algorithms, Concurrency considerations (synch./asynch. execution, mutex, etc.)