

MEGHANA GUPTA

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EDUCATION

University of Utah

M.S. Computer Science *GPA: 3.783*

Salt Lake City, Utah

August 2019 - Present

Birla Institute of Technology and Science, Pilani

B.E. Computer Science (Hons.) *GPA: 7.63/10*

Goa, India

August 2013 - May 2017

EXPERIENCE

Microsoft Azure

Software Engineering Intern

Redmond, Washington

May 2020 | Present

- Working with the Azure Resource Manager team on extending Azure Arc to manage Private Clouds for customers by developing a bridge service to operate between external Kubernetes clusters and the Azure control plane.
- Responsibilities involve designing technical specifications for resource management operations, implementing said specifications in C# while integrating with existing ARM services and testing the service through unit and integration tests.

School of Computing - University of Utah

Teaching Assistant - CS 1410 OO Programming, CS 3505 Software Practices II

Salt Lake City, Utah

August 2019 | April 2020

- Responsible for conducting labs, holding consulting hours and one-to-one mentoring sessions for classes of 349 students along with other teaching assistants.
- Duties include grading assignments, quizzes and papers, and aiding Prof. Joseph Zachary (CS 1410) and Prof. Peter Jensen (CS 3505), faculties-in-charge, with other course demands.

Amazon Web Services

Software Development Engineer I

Bengaluru, India

October 2018 | July 2019

- Designed, developed and tested product-space and user-space services to fulfill invoicing and payment related requirements for AWS's Supply Chain Management (SCM) platform, which is an offering utilizing a reactive microservices architecture built upon native AWS services.
- Developed an application used by customers to view, edit and handle invoices and their reconciliation. Responsibilities involved developing mocks and prototypes, coding the frontend interface in React and Redux, and creating an AWS AppSync API which integrated the application with our backend services.
- Automated internal workflows and processes, which saved 84 working hours every month for internal finance teams. Reduced trouble tickets for legacy payments services by 73%/month.

TiVo

Software Engineer

Associate Software Engineer

Bengaluru, India

July 2018 | September 2018

July 2017 | June 2018

- Worked on the external routing layer that communicated with all external clients and routed requests accordingly. Responsibilities included developing and maintaining dockerised microservices for the Apache Kafka Streams based platform to increase throughput from 500,000 requests per day to 5,000,000 requests per day.
- Modified Pinterest's OSS "Secor" to back Kafka logs to AWS S3 according to custom requirements, and designed and developed an internal debugging tool that determined relative ordering between events and ran a user's custom queries against the backed up data.
- Worked on a patent prototype that used AWS Rekognition (Amazon's image and video analysis service), AWS S3 and SNS services to recognise celebrities through facial detection in high-definition videos. The resulting metadata was used to enrich the company's existing stores of video metadata.

Intel Technologies

Intern

Bengaluru, India

July 2016 | December 2016

- Automated code template and project report generation for the pre-silicon modem software verification team, and initiated software porting of client deliverable applications from Linux to Windows.
- Debugged and modified C/C++ code used in the modem side simulation of the protocol stack.

PUBLICATIONS

- Ankit Bhardwaj, Meghana Gupta, and Ryan Stutsman. **On the Impact of Isolation Costs on Locality-aware Cloud Scheduling**. *In Proceedings of the 12th USENIX Conference on Hot Topics in Cloud Computing, HotCloud'20, Berkeley, CA, USA, 2020. USENIX Association.*

LANGUAGES AND SERVICES

Java, C++, C, Python, Azure and AWS services: High
Kubernetes, Go, C#, Rust, JavaScript, React and Redux (Frameworks), Docker: Intermediate

PROJECTS

SVHN Dataset classifier April 2017

Tensorflow, PIL, Sklearn, Python

Implemented a 5 layer deep convolutional neural network that used an Adam optimiser to detect and recognise house numbers in the Google Street View House Numbers dataset. Visualised statistics using TensorBoard. Model was trained on a NVIDIA GTX-860M 4G GPU for 1 hour and recognised house numbers with high accuracy.

StackOverflow tag prediction dataset April 2016

Hadoop, Python

Used a Kaggle dataset that contained StackOverflow post topics with the corresponding tags to train a random forest classifier, followed by Stochastic Gradient Descent to predict the tags for some post topics in the test set. Preprocessed data using Hadoop. The algorithm was able to achieve 70% accuracy.

RELEVANT COURSEWORK

Graduate courses and electives

- Advanced Operating Systems, Natural Language Processing, Computer Architecture, Computer Networks, High Performance Computing

Undergraduate courses and electives

- Operating Systems - Grade B, Data Structures and Algorithms - Grade B, Compilers - B-, Machine Learning - Grade B, Introduction to Neural Networks - Grade A, Linear Algebra (Math II) - Grade B-, Probability and Statistics - Grade B

EXTRACURRICULAR ACTIVITIES

Literary and Debating Club

Chief co-coordinator

April 2014 | April 2015

Sizzling Sands, K.K. Birla Goa Campus' Annual Magazine

Head Designer

April 2015 | November 2015

EXTRACURRICULAR ACHIEVEMENTS

- Won the Goa regional round of Tata Crucible and prize money of INR 75,000. Qualified for the West Zonals.
- Active Quiz Club member - won or secured a place in the top 3 in national quizzes held during Waves and Quark, BITS Goa's cultural and technical festivals.
- Avid Debater - participated in international debate tournaments in IIT Bombay, Christ College and Stella Maris College.