

# Aman Mangal

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INDUSTRY EXPERIENCE	<b>Arista Networks, Remote (Jaipur, RJ, India)</b> [Sept'20 – Present] Software Engineer (Mentor: Prateek Nigam, Amod Dani) <ul style="list-style-type: none"><li>Managing Zero Touch Provisioning (ZTP) package for smoothly onboarding devices to CloudVision (CVP) by adding new features, fixing bugs and improving test coverage</li><li>Facilitated support for ZTP as a Service (ZTPaaS) for Arista's cloud offering of CVP (CVaaS) from planning, execution to taking it to production</li><li>Implemented a grpc service for issuing ownership vouchers adhering to RFC 8572 for ZTP onboarding devices securely in an untrusted environment</li></ul>
	<b>Dgraph Labs, Bengaluru, KA, India</b> [Feb'19 – Apr'20] Senior Distributed Systems Engineer (Mentor: Manish Jain) <ul style="list-style-type: none"><li>Dgraph is a strongly consistent, horizontally scalable graph database written in <i>Go</i></li><li>Enabled Dgraph to compute indexes in background unblocking new mutations while ensuring that index deltas are added correctly for existing as well as new mutations</li><li>Added support for <i>Upsert</i> and <i>Multiple Mutations</i> in the query language (<i>GraphQL+</i>) by modifying the lexer, compiler and the execution engine</li><li>Founding engineer of the team in Bangalore and grew the team to more than 15 people</li></ul>
	<b>Zeotap, Bengaluru, KA, India</b> [Apr'17 – Jan'19] Senior Software Engineer (Mentor: Sathish K S) <ul style="list-style-type: none"><li>Built, optimized and stablized data pipelines using <i>Spark</i> and <i>Oozie</i> to push data to <i>Aerospike</i> and <i>Amazon Redshift</i> while ensuring consistency of data even when jobs fail</li><li>Implemented an in-memory columnar database in <i>Go</i> for customized low latency use case</li><li>Designed an algorithm to compute revenue attribution SQL query for multi-sourced dataset with proof for correctness along with various query optimization steps</li></ul>
	<b>ZeroStack Inc, Mountain View, CA, USA</b> [June'16 – Sept'16] Member of Technical Staff Intern (Mentors: Gautam Kulkarni, Kiran Bondalapati) <ul style="list-style-type: none"><li>Implemented support for adding external storage to ZeroStack using OpenStack Cinder drivers, extensible to future Cinder drivers with minimal changes to ZeroStack</li></ul>
EDUCATION	<b>Georgia Institute of Technology, Atlanta, GA, USA</b> [Aug'14 – Jun'16] MS in Computer Science (Specialization: Systems), GPA 3.71/4
	<b>Indian Institute of Technology, Bombay, India</b> [Aug'10 – Jun'14] B.Tech. (Hons.) in Computer Science & Engineering, GPA: 8.54/10
HOBBY PROJECTS	<b>BigQueue (<a href="https://github.com/grandecola/bigqueue">https://github.com/grandecola/bigqueue</a>)</b> <ul style="list-style-type: none"><li>Inspired from Java BigQueue, built an open source (MIT License) embedded, fast and persistent queue written in pure Go using memory mapped (mmap) files</li></ul> <b>Zscaler - hackathon @ Zeotap (<a href="https://tinyurl.com/zscaler-hackathon">https://tinyurl.com/zscaler-hackathon</a>)</b> <ul style="list-style-type: none"><li>Replaced an external service (Spotinst) used to scale AWS Elastic Map Reduce (EMR) clusters with spot nodes by a custom built service saving more than \$50K/year</li><li>Utilized insights from the yarn cluster scheduler in order to provide shorter job completion times (by faster scale up), better visibility and proactive alerts</li></ul>
ACADEMIC ACHIEVEMENTS	<ul style="list-style-type: none"><li>Secured All India Rank 70 in IIT JEE 2010 and All India Rank 256 in AIEEE 2010</li><li>Stood amongst top 1% students in Indian National Physics Olympiad, 56<sup>th</sup> in National Science Olympiad (NSO), 7<sup>th</sup> in second round of Indian National Mathematics Olympiad</li><li>Selected for Student Exchange Program and completed Spring semester 2011-12 in Nanyang Technological University (NTU), Singapore</li></ul>