

AKASH MANI

(+1) 631-615-3129 | akash.nitt@outlook.com | [LinkedIn](#) | [Google Scholar](#)

EDUCATION

Stony Brook University

Stony Brook, NY

Master of Science - Computer Science, GPA: 3.97/4

Aug. 2024 - Jan. 2026

Relevant Coursework Distributed Systems, Operating Systems, Computer Networks, Computer Architecture

Graduate Research PACE Lab: Sustainability cost modeling for data center workloads

Teaching Assistant CSE548: Graduate Analysis of Algorithms

National Institute of Technology, Trichy

Tiruchirappalli, TN, India

Bachelor of Technology with Distinction - Computer Science, CGPA: 8.9/10

Jul. 2017 - May 2021

Undergraduate Research Detection and Classification of DDoS attacks using Machine Learning Techniques

WORK EXPERIENCE

Arista Networks, Inc.

Nashua, NH

Software Engineer, EOS Sand Platform

Jan. 2026 - Present

- EOS Platform Development for Jericho-based switches

Software Engineer Intern

May. 2025 - Aug. 2025

- Architected a model-based testing framework for the TCAM memory manager package that validates system invariants by simulating a random sequence of events (e.g., concurrent TCAM requests, TCAM profile changes, linecard removals, process restarts) to proactively find critical bugs
- Designed and implemented a new feature for a major customer to support security access-control lists (ACLs) on complex IPvX-over-IPvX-over-MPLS tunneled packets
- Discovered and fixed a critical sev1 bug in the TCAM memory manager that caused traffic disruption. Developed a new breadth test to prevent regression

Cisco Systems, Inc.

Bangalore, KA, India

Software Engineer II, Distributed Systems Engineering

Aug. 2022 - Aug. 2024

- Owned the development of several access-control list (ACL) and control plane policing (CoPP) features for the Cisco NX-OS data center operating system with C, C++, Python, and Linux programming
- Led cross-functional efforts to enhance code quality and optimization of automation and logging frameworks across development and QA teams
- Played a pivotal role in the software bring-up of a new 400G-bandwidth Cisco Nexus data center platform

Software Engineer I

Aug. 2021 - Aug. 2022

- Contributed to the development and ongoing maintenance of Cisco NX-OS ACL, CoPP, and model-driven programmability features
- Resolved several critical customer-reported and internally-found issues on Cisco Nexus 9K/7K/3K switches

Software Engineer Intern

May 2020 - Jun. 2020

- Created a Python-based tool that generates stateful traffic streams of 30+ control-plane protocols using the open-source Scapy packet manipulation library

Bharat Heavy Electricals Limited

Tiruchirappalli, TN, India

Research Assistant

Dec. 2019 - May 2020

- Participated in an academic-industrial research study under Prof. M. Sridevi, NIT Trichy to establish comprehensive design guidelines for implementing a real-time CAN network in heavy-duty commercial vehicles
- Presented a prototype simulation of the CAN SAE J1939 network using open-source Busmaster software

PROJECTS

Distributed Banking System | Go

Fall 2025

- Engineered a fault-tolerant distributed banking system using Stable-Leader MultiPaxos consensus protocol
- Utilized goroutines for concurrent node operations and NetRPC for network communication, ensuring sequential transaction consistency and high availability across 5 nodes despite up to 2 concurrent failures

RV64IM processor | SystemVerilog

Fall 2024

- Implemented a functional 5-stage RISC-V processor with set-associative cache, supporting load/stores and ECALL instructions with pipeline flush over AXI4 bus communication protocol