

NEERAJ GANU

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EDUCATION

Stony Brook University, Stony Brook, NY

May 2021

Master of Science, Computer Science

GPA: 3.45/4

Courses: Operating Systems, Distributed Systems, Analysis of Algorithms, Artificial Intelligence, Data Visualization
Data Science Fundamentals, Theory of Databases, Natural Language Processing

Vishwakarma Institute of Technology, University of Pune, India

May 2019

Bachelor of Technology, Computer Engineering

GPA: 8.49/10

WORK EXPERIENCE

NVIDIA – CPU Architect

July 2021 – Present

Location: Hillsboro, Oregon

- Working on analysis of architecture performance in simulation for NVIDIA CPU team.

NVIDIA – Computer Architecture Intern

June 2020 – August 2020

Location: Hillsboro, Oregon (Remote)

- Augment CPU simulation function map generation to include symbols from external libraries
- Implement infrastructure to create sampled CPU simulation checkpoints with SMP (multicore)
- Create a tool to write info files about simulation checkpoints using data from SQL database.

SBU – Research Assistant

April 2020 – May 2020 & August 2020 – May 2021

- Analyse effects for task and data affinity for CPU threads in OpenMP (working with RWTH Aachen)
- Implemented a library for GPU scheduling of OpenMP tasks
- Changes to LLVM - LIT for incorporating OpenMP multicore testing for existing tests in LLVM test-suite
- Create a Buildbot infrastructure to be able to run these tests on machines at the Exascale at SBU
- Project was accepted to LLVM-ECP by DOE and will be extended to add GPU and Scheduling support

NVIDIA – Systems Software Intern

August 2018 – December 2018

Location: Pune, India

- Contributed in establishing an RPC infrastructure used for communication between kernel mode driver and an on-chip microcontroller, specifically focusing on RPC-s for the I2C protocol.
 - Built a python tool that automated capturing Bullseye code coverage from driver verification test submissions.
 - Created bash & batch scripts to automate 14 notebook power measurement scenarios (e.g. Idle, Gaming, SPEC)
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SKILLS

- Programming Languages: C, C++, Python, Go, JavaScript, Java, C#
 - Scripting in Linux and Windows, Windows/Linux debugging, Kernel level coding, gdb
 - Experience with LLVM, CUDA, OpenMP, MPI, Machine Learning, Deep Learning, Buildbot
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PROJECTS

Semantic Analysis of Comments

Spring 2019

- Implemented a deep learning model (RNN with GRUs) to predict the nature of a comment
- Made use of text embeddings such as: GloVe, Word2Vec, FastText (ROC-AUC score of 0.9836)
- Built a telegram admin bot to monitor foul language in any telegram group.

Intermediate Code Generator for Compiler

Spring 2019

- Given an expression or set of expressions generates forms of intermediate codes such as: three address codes, quadruples, triples, postfix, abstract syntax tree and directed acyclic graph
- Implemented the project using LEX and YACC. Other code in C++.