VinodReddy Gooty **u1142935@utah.edu**
https://gooty12.github.io/

Education

MS in Computer Science **GPA - 3.89/4** Aug 2017 - May 2019
University of Utah, Salt Lake City, USA
Selected Coursework: Distributed Systems, Advanced Algorithms, Database Systems, Programming Languages, Data Visualization.

B.Tech in Computer Science **GPA - 8.10/10** May 2015
National Institute of Technology Calicut, Calicut, India.

Work Experience

Graduate Teaching Assistant, August 2018 - Present
University of Utah
Course: Algorithms (CS-4150)
- Responsible for grading the assignments and quizzes, helping students with course material and the coding challenges assigned to them.

Thermofisher Scientific, Bangalore July 2015 -2017
Associate Software Developer
- Sustained the company's multiple legacy projects with feature enhancements, and by fixing customer reported bugs under strict time constraints. Also assisted in moving the legacy desktop apps to cloud.
- Ported the company's propietary DNA sequencing algorithm and related libraries from Linux to Windows.
- Automated the process of DNA sequencing analysis and reporting the resultant data through scripts.
- *Technologies:* Java, C/C++.

Projects

Distributed (Raft) Key-Value datastore *Current*
- Implemented a replicated key-value datastore that supports get, put and append operations. Replicas' state and their failures are handled by Raft protocol which is implemented as an independent service.
- Implemented a fault-tolerant Map/Reduce library that speeds up computationally intensive tasks' execution by distributing the work among all available servers.

SimpleDB *Current*
- Developed relational DBMS kernel that supports basic relational operators (joins, aggregates) and transactions. Kernel implements B+ tree indexing, LRU caching, query optimization, and 2PC.

Gradually-typed Interpreter *Independent Study*
- Implemented an interpreter for a gradually-typed language that supports type-inference and let-polymorphism. Gradual-typing (from recent research) combines both static and dynamic typing making it hard to infer static and polymorphic types and distinguish these types from dynamic types.

Implementation of Extended-Hyperwall Senior-Year Project
- Designed a hardware based support to enhance the security of Virtual machines running in virtual environments. This support known as Extended-Hyperwall augments Hyperwall, proposed in the literature, to prevent the rollback based attacks possible on VMs.
- Simulated the proposed design on Xen Hypervisor kernel.

Skills

- **Programming Languages:** Java, C/C++, Go.
- **Web Technologies***(moderate)***:** HTML, CSS, JavaScript, D3.