# MANU GOYAL

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### EXPERIENCE

Jane Street 2016

- Intern on the software engineering side
- Built an event handler that significantly improved the speed and memory usage of order execution nodes
- Designed and implemented a heuristic tool for monitoring interesting options trades

Dropbox 2015

- Intern on the Dropbox for Business team
- Implemented permissions model for nested shared folders
- Performance and stability improvements to critical server endpoints

UC Berkeley AMPLab 2014-2015

- $\bullet \ Working \ with \ Ion \ Stoica \ on \ Tachyon, a fault tolerant \ distributed \ file \ system \ enabling \ reliable \ file \ sharing \ at \ memory-speed \ across \ cluster \ frameworks, such as \ Spark \ and \ MapReduce$
- Implemented fine-grained caching for columnar data

Google 2014

- Intern on Dremel, a high-performance SQL query engine for web-scale data analysis
  - Developed a new type of lookup join for joining a large partitioned table and a smaller table where a hash join would incur too much overhead
  - Implemented a lookup table on top of Google's distributed in-memory data store to implement the join

### Carnegie Mellon University 2013

- Worked with Dave Andersen on libcuckoo, a high-speed, memory-efficient, hash table designed for high levels of concurrency
- Improved the design to support concurrent expansion and concurrent writers

MemSQL 2012, 2013

- Worked on a scalable, in-memory database
- · Implemented foreign keys with referential integrity
- Developed a tool to replicate between MySQL and MemSQL

### **EDUCATION**

UC Berkeley 2013-2017

- Electrical Engineering and Computer Science (EECS)
- GPA: 3.98

SKILLS STATUS

#### **Programming Languages**

C, C++, Python, SQL, Java, Go, HTML, Javascript, CSS, Haskell, OCaml, SML, x86 Assembly, LaTeX

## Honors Software

Emacs, Vim, GDB, Git, Microsoft Office, Adobe CS

Citizen of United States

Full time student

National Merit Scholar National AP Scholar