Aditya Pakki

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Education

- **Ph.D. Computer Science** — **University of Minnesota - Twin Cities** — **Minneapolis, MN**
  Advisor: — *GPA: / 4.0* — *Aug 2017 – present*
  - Reserach Interests: High Performance Computing, Numerical Analysis, Machine Learning.
- **M.S. Computer Science** — **University of Utah** — **Salt Lake City, UT**
  Advisor: Prof. Martin Berzins — *GPA: 3.63 / 4.0* — *Aug 2014 – Aug 2016*
- **B.Tech. Information Technology** — **Jawaharlal Nehru Techn. University** — **Hyderabad, India**
  Advisor: Prof. P. Gopalakrishna — *Score: 82.37 / 100* — *Sep 2007 – Jun 2011*

Technical Skills

Languages: C++11, Python, C, LaTeX, shell scripting, MPI, OpenMP, CUDA.
Tools & Environments: Linux, SVN, Git, Vim, MATLAB, Cmake, GDB, GCC tool chain, ROOT.
Past Experience: Go, Java, JavaScript.

Experience

- **University of Minnesota** — **Minneapolis, MN**
  Graduate Teaching Assistant — *Aug 2017 - present*
- **Los Alamos National Laboratory** — **Los Alamos, NM**
  Graduate Research Assistant — *May 2017 – Aug 2017*
  - Supervised by Dr. Jozsef Bakosi & Dr. Christoph Junghans, in the Data Science at Scale summer school.
  - Conducting data analysis on fluid dynamics using ROOT framework and exploring possible visualization capabilities.
- **Goldman Sachs, Inc.** — **Salt Lake City, UT**
  Contractor Technology Specialist — *Dec 2016 - May 2017*
  - Ensure that the organization production & QA computing infrastructure is running and healthy.
  - Wrote scripts in shell and SQL queries for various databases flavors to resolve job failures and load issues.
- **Scientific Computing and Imaging Institute** — **Salt Lake City, UT**
  Graduate Research Assistant — *May 2015 - Aug 2016*
  - Added resiliency capabilities to Uintah Computation Framework using C++11with Boost libraries & STL.
  - Implemented task re-execution capability for core failures and data bounded cubic interpolation routines for node failures. Presented partial results at RESPA'15 workshop at SC'15.
- **University of Utah** — **Salt Lake City, UT**
  TA for Introduction to Scientific Computing & Object Oriented Programming — *Aug 2014 - May 2015*
- **Automatic Data Processing, LLC** — **Hyderabad, India**
  Software Developer — *Aug 2011 - Jun 2014*
  - Performed query optimization, migrated queries from DATACOM to DB/2, tuned indices, and used Kanban for production issues.

Academic Projects

- **Mining system logs to predict failures:** Implemented Apriori and clustering algorithms, using Python on supercomputer logs to compare the efficiency of detecting failures.
- **CUDA based P3DFFT algorithm:** Worked on migrating the C based library API to CUDA and measured performance improvements by running on cluster of NVIDIA Tegra TK1 GPUs.