Daniel J. Magee

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EDUCATION

Oregon State University, Corvallis, Oregon, USA

- M.S. in Mechanical Engineering — Apr 2016- Jun 2018
  - Adviser: Prof. Kyle Niemeyer
  - Focus: Thermal-fluid sciences; CFD; numerical methods; Parallel, GPU, and heterogeneous computing.
- B.S. in Mechanical Engineering — Jun 2012- Mar 2016
  - Cumulative GPA: 3.78 / 4.0

Temple University, Philadelphia, Pennsylvania, USA

- BS in English — May 2002- May 2006
  - Cumulative GPA: 3.42 / 4.00

SKILLS

Software: MATLAB, Python, CUDA, C/C++, Linux, Bash, Markdown, git, LaTeX, OpenMP, MPI, OpenCL, Univa Grid Engine, GNU Make, MS Office (VBA)
Technical: Statistics, Generalized linear models, Design of Experiments, Numerical analysis, Graph algorithms, Communication avoiding algorithms, Dynamic programming, Computer hardware

PUBLICATIONS

D. Magee and K. Niemeyer, "An initial investigation of the performance of GPU-based swept time-space decomposition," in *55th AIAA Aerospace Sciences Meeting, AIAA SciTech Forum*, Grapevine, TX, USA, Jan 2017.

D. Magee and K. Niemeyer, "Accelerating solutions of one-dimensional unsteady PDEs with GPU-based swept time-space decomposition," in *Journal of Computational Physics*, (2017).

WORK EXPERIENCE

Oregon State University, Corvallis, Oregon, USA

- Graduate Research Assistant, Niemeyer Research Group — Mar 2016- present
  - Developing communication-avoiding algorithms for CPU and GPU architectures and heterogeneous compute clusters to accelerate the performance of explicit, time-stepping numerical schemes for partial differential equations.
  - Designing experiments for empirical analysis of parallel algorithms using python and CUDA.
- Teaching Assistant — Jun 2013- Mar 2016
  - ENGR 112: MATLAB - 6 semesters
  - ME 499/599: Python - 1 semester
  - ME 317: Intermeidate Dynamics - 1 semester

HP Inc., Corvallis, Oregon, USA

- Process Engineering Intern — Mar 2015- Sep 2015
  - Developed experiments and analytical procedures involving linear regression and curve fitting to characterize adhesive cure process.
  - Designed fixtures for Helium leak testing and geometric analysis of delicate component.

Daimler Trucks North America, Corvallis, Oregon, USA

- Facilities Engineering Intern — Mar 2014- Sep 2014
  - Analyzed and mapped compressed air system throughout ten-acre facility and recommended specific improvements.
  - Designed and managed bidding process for automated spray system in elecrophoretic coating process.