Dylan Madisetti

PhD Student, Johns Hopkins, 2022

Funding: NSF GRFP

Department: Mechanical Engineering

Undergrad: Univ. of South Carolina

B.S. Mechanical Engineering (Math, Computer Science Minors)

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Work Experience

8/2018.
current

PhD Student

Johns Hopkins, Baltimore

- Actively contributed towards grant proposal writing.
- Spearheading investigations into simulating partial dislocation in FCC metals to capture previously undescribed phenomenon in super alloy deformation.
- Developing Neural Nets as feature extractors for materials characterization.
- Bringing Material Science into the big data domain.

7/2017.
7/2018

Software Engineer

Google, Mountain View

- Worked on Ray Kurzweil's team for Natural Language Understanding.
- Pioneered method for debiasing word, sentence and semantic vectors.
- Contributed towards internal framework for multi-tower semantic models (Universal Encoder).
- Worked with high dimension semantic location to extract valuable market information.
- Build massively parallel data processing pipelines for Google scale analysis (C++, MapReduce).
- Created and train machine learning Tensorflow graphs to deploy at scale.
- Created hyperparameter autotuning procedures for blackbox optimization.

1/2015.
5/2017

Undergraduate Researcher

Integrated Material Assessment & Predictive Simulation Laboratory (USC)

- Developed code for $775,072 NASA grant (15540-FD03).
- Prototyped CAD-to-pointcloud meshing procedure specific for under independently awarded $3,000 SURF grant.
- Integrated CUDA GPU processing in point-cloud meshing procedures.
- Designed a cochlea inspired piezoelectric energy harvester from co-authored $3,000 Magellan Grant.
- Worked with acousto-elastic metamaterials- leading to publication.

6/2016.
8/2016.

Research and Development Intern

NASA Langley Research Center

- Developing custom DPSML simulation software (C++) to run on massively parallel super computer (using MPI) clusters.
- Constructed laser excitation system to create guided waves in damaged composites for NDE observation.
- Automated operated experimental setup with vibrometer and laser using IO serial commands in C#.

5/2014.
12/2015.

Co-founder/ Software Developer

CloudCollege PBC.

- Collaborated to build the CloudCollege product which has secured $50,000 in seed funding.
- Expanded and improved an existing beta product into a consumer-ready release.
- Coordinated business goals and product development.
- Ran user research studies in order to inform product direction.

9/2013. Undergraduate Researcher
5/2016. Advanced Manufacturing Research Laboratory (USC)
- Fabricated test molds for new method of spin mold processing using 3D printing.
- Used circuit boards and Arduinos to create controllable environment for spin processing.
- Wrote Ruby modules for Sketchup to help with design process.

3/2013. Software Developer
9/2013. BoomTown LLC.
- Full time employee with a competitive salary at the age of 18.
- Extended and contributed to C# API for over 600 frontend websites.
- Managed front-end websites in PHP (Later Hack as we experimented with HHVM), Less and Coffee-script.

9/2012. Software Developer
3/2013. Equiscript LLC.
- Managed large amounts of business data between Salesforce platform, dedicated SQL servers and 3rd party stake holders.
- Wrote workflows and entire processes in Salesforce's Apex (very similar to Java).
- Worked with C#'s Linq library for detailed data processes.
- Developed in SQL, and Python automated data processing procedures.
- Provided elastic instance system administration on Amazon's EC2 platform, and Rackspace.

Publications

9/2016. **Journal of Intelligent Materials Systems and Structures**: A process to Scavenge energy at low acoustic frequencies ($<$ KHz) with controlled geometric configurations (Ahmed, Madisetti, Banerjee)

Honors

2018.	2nd Place HopHacks (MLH)	2017.	NSF GRFP
2017.	USC President of ASME	2017.	Outstanding Senior Award
2017.	USC Cyber Security Executive Staff	2016.	SURF Grant Recipient
2015.	Goldwater Fellowship Finalist	2015.	Magellan Grant Recipient
2015.	NSPE Foundation Scholarship	2014.	Phi Beta Kappa Freshman Award
2015	Tau Beta Pi		