

# James W. Mnatzaganian

8 Alfie Drive, Rochester, NY 14623

◆ jamesmnatzaganian@outlook.com

◆ [www.linkedin.com/in/jamesmnatzaganian](http://www.linkedin.com/in/jamesmnatzaganian)

◆ (828) 467-0933

◆ <http://techtutorials.me>

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## OBJECTIVE

Secure a full-time position as a data scientist, machine learning researcher, or software engineer. Tentatively available Jan 2016.

## EDUCATION

**Rochester Institute of Technology**, Rochester, NY

M.S. in Computer Engineering, expected Dec 2015

GPA: 4.000/4.000

**Rochester Institute of Technology**, Rochester, NY

B.S. in Microelectronic Engineering, awarded in May 2013

GPA: 3.570/4.000

Minor in Computer Engineering, awarded in May 2013

Awards: Graduated with Honors

## SKILLS AND EXPERIENCE

### LEADERSHIP / TEACHING

- Managed a three person team responsible for developing an innovative solution for code validation
- Former Vice-Chairman of the IEEE RIT chapter
- Taught a Python course to over 500 people
- Former President of the Microelectronic Engineering Student Association
- Instructing a lab on digital IC design
- Co-leader of a church small group

### SOFTWARE ARCHITECTURE / DEVELOPMENT

#### *Machine Learning Solutions*

- Designing a hierarchical Machine Learning (ML) algorithm for advanced computer vision applications
- Developed an Artificial Intelligence using a Deep Belief Network (DBN) to detect the sentiment of Tweets
- Developed a ML algorithm using DBNs to categorize static hand gestures, achieved >90% accuracy
- Developed a parallel framework in Python for Artificial Neural Networks

#### *Database Solutions*

- Created the architecture for a Python solution capable of analyzing billions of measurements. The design included a complete database design (MySQL), a cross-platform UI, a full description of all software components, a project timeline, and relevant documentation. Phase I of the project is estimated to result in a savings of 60 man-hours / wk.
- Designed and developed a fully automated, dynamic, expandable database solution for storing data using Python and MySQL. A UI was created to allow advanced querying without requiring SQL input.
- Designed and developed a system to track DDR3 memory field failures for the entire US, resulting in savings of over \$200,000 / yr.

#### *Languages, Operating Systems, and Programs*

- Python • SQL • VBA • HTML • Shell Scripting • Microsoft Windows • JMP • CUDA
- C/C++ • Perl • C# • VHDL • MATLAB • Adobe Products • \*nix

## WRITING SKILLS

- Co-authored two whitepapers, regarding NAND and DRAM memories and emerging memories
- Operate a personal, technical blog, writing articles on programming, \*nix, and Windows

## WORK EXPERIENCE

*Lab Instructor*, Rochester Institute of Technology (Rochester, NY)

08/14 –

*Product Development Engineer (Probe Engineer), Software Graduate Intern*, Intel (Folsom, CA)

06/14 – 08/14

*Computer Architect, Graduate Intern Technical*, Intel (Folsom, CA)

05/13 – 01/14

*Fab Operations Co-op*, Northrop Grumman (Linthicum Heights, MD)

06/12 – 08/12

*Process Engineer Intern*, Rochester Institute of Technology (Rochester, NY)

06/11 – 10/11

*ISC Memory Procurement Engineer, Co-op EE*, IBM (East Fishkill, NY)

06/10 – 11/10