David vanMaanen

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OBJECTIVE

Successful grad student seeks challenging position to apply technical skills.

EDUCATION

CARNEGIE MELLON UNIVERSITY

MS in Neural Computation
Expected May 2015 | Pittsburgh, PA
Cum. GPA: 3.91/4.0

PENN STATE UNIVERSITY

BS in Physics
Aug 2009 | State College, PA
Minor in Math
Schreyer's Honors Scholar
Cum. GPA: 3.65 / 4.0

SELECT COURSEWORK

GRADUATE

Intro to Machine Learning
Intermediate Statistics
Mathematical Neuroscience
Computational Neuroscience

UNDERGRADUATE

Differential Equations
Advance Calculus
Statistical Mechanics
Classical Dynamics
Probability
Electrodynamics

SKILLS

PROGRAMMING

Solid:
Linux Shell • Python • Matlab
Python(Numpy, matplotlib, scipy)
C • C++ • LaTeX • MPI Library(C)
git
Familiar:
HTML• CSS • JavaScript • MySQL
subversion • torque/PBS

MATH/DATA ANALYSIS

Dynamic Systems Modelling
Displaying Data for Reports
Using Various Statistical Techniques

EXPERIENCE

GRADUATE RESEARCH ASSISTANT | University of Pittsburgh

August 2013 - Present | Pittsburgh, PA

- Design and implement computational models.
- Analyze experimental data and compare to models.
- Write documentation and publish articles detailing work
- Use Python, Matlab, and various programming package to accomplish tasks.

TECHNICAL RESEARCH ASSISTANT | Mclean Hospital

Oct 2010 – July 2013 | Belmont, MA

- Build biologically realistic computational models of neural networks using various tools including C, C++, and MPI.
- Use Beowulf cluster running on Linux for parallel simulations
- Perform analysis of simulated data and design figures displaying data.
- Produce and maintain documentation for various custom scripts.

STUDENT RESEARCHER (UNFUNDED) | Penn State Department of Physics

Sept 2008 - Aug 2009 | State College, PA

- Build computational models of noise in neural networks using C, C++, and Octave(Matlab clone)
- Design accompanying figures to explain data.
- Culminated in completion of thesis for graduation from the honors college

STUDENT GUEST | Los Alamos National Laboratory

June 2008 – Aug 2008 | Los Alamos, NM

- Improved neural network models of the primary visual cortex for use in computer vision by modifying simulation written in C.
- Integrate with rest of team using appropriate documentation and Subversion version control.
- Participated in the Los Alamos Summer School program sponsored by University of New Mexico

TEACHER ASSISTANT | Penn State University- Wilkes-Barre campus

Spring 2007 | Wilkes-Barre, PA

- Assisted professor in freshman introductory physics lab class.
- Assisted students in performing labs and understanding the results.

MEMBERSHIP

Spring 2008- present	Member	Sigma Pi Sigma Physics Honors Society
Fall 2005-Spring 2007	Treasurer/Rep.	PSU W-B Student Government
Fall 2005- Spring 2006	Treasurer	Honors Society, PSU W-B Campus

MISC EXPERIENCE

Feb 2010- Oct 2010	Emergency Medical Tech.	Trans-Med Ambulance Services
Dec 2009- April 2010	Tutor Manager	Attain Learning Center
Dec 2009	Seasonal Retail Rep.	Mattel, Inc.
Oct 2007- Aug 2009	Auxiliary Officer	PSU Auxiliary Polices