

David vanMaanen

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OBJECTIVE

To obtain a challenging position that utilizes my programming and analysis skills.

EDUCATION

CARNEGIE MELLON UNIVERSITY

MS in Neural Computation

Expected May 2015 | Pittsburgh, PA
Cum. GPA: 3.76/4.0

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
Statistical Machine Learning
Mathematical Neuroscience
Computational Neuroscience

UNDERGRADUATE

Differential Equations
Advance Calculus
Statistical Mechanics
Classical Dynamics
Probability
Electrodynamics

SKILLS

PROGRAMMING

Expert:

Python • Linux Shell • Matlab
git • C • C++
LaTeX • MPI Library(C)

Basic:

HTML • CSS • JavaScript • SQL
subversion • torque/PBS

MATH/DATA ANALYSIS

Dynamic Systems Modelling
Displaying Data for Reports
Using Various Statistical
Techniques

PROFESSIONAL EXPERIENCE

GRADUATE RESEARCH ASSISTANT | University of Pittsburgh

August 2013 - Present | Pittsburgh, PA

- Design and implement computational models of neural systems to understand mechanisms of cognitive abilities.
- Plan to publish paper on a novel, reduced model of clustering in E-I networks.
- Use Python, Matlab, and various programming packages to accomplish tasks.

TECHNICAL RESEARCH ASSISTANT | McLean Hospital

Oct 2010 - July 2013 | Belmont, MA

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

THESIS PROJECT | Penn State Department of Physics

Sept 2008 - Aug 2009 | State College, PA

- Built computational models of noise in neural networks using C, C++, and Octave.
- Designed accompanying figures to explain data.
- Fulfilled requirements for graduation from the honors college.

SUMMER INTERN | Los Alamos National Laboratory

June 2008 - Aug 2008 | Los Alamos, NM

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

TEACHER ASSISTANT | Penn State University

Spring 2007 | Wilkes-Barre, PA

- Co-advised students in freshman intro physics lab.
- Helped students in performing labs and understanding the results.

LEADERSHIP AND HONORS

- Treasurer/Rep., PSU W-B Student Government, 2005-2007
- Treasurer, Honors Society, PSU W-B Campus, 2005- 2006
- Sigma Pi Sigma (Physics Honor Society)

ADDITIONAL EXPERIENCE

EMT, Trans-Med Ambulance

Tutor Manager, Attain Learning Center

Auxiliary Officer, PSU Auxiliary Police

Customer Service Associate, Price Chopper

Feb 2010 - Oct 2010

Dec 2009 - April 2010

Oct 2007 - Aug 2009

July 2006 - Aug 2007