NAM D. NGUYEN

Machine Learning Researcher · **Software Engineer**

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EXPERIENCE

RESEARCH ASSISTANT
📅 May 2017 – Present · 📍 USA

Laboratory of Informatics, Networks and Systems, Stony Brook University

SBU-BNL SEED Grants *"Large-Scale Comparative Regulatory Network Analysis in Photosynthetic Organisms"*

- Collaborated with Brookhaven National Lab. to collect & analyze RNA-Seq data of *Chlamydomonas reinhardtii*
- Researched manifold alignment & its application to multi-view learning
- Developed ManiNetCluster; authored a related paper; presented at ACM-BCB 2018 & RSGDREAM 2018, resulting in favorable feedback and recommendation for inclusion in the next phase of the project
- Solved the trade-off between parametric and nonlinear manifold alignment by designing a deep architecture; implemented in PyTorch

Other Projects

- Led a team in 2 prediction competitions, Zillow Prize & Online Dating Matchmaking (top 22%)
- Led the project "Automated Singing Evaluation" to train the machine to distinguish between good & poor singing

RESEARCHER
📅 Mar 2011 – May 2013 · 📍 S.Korea

Software Engineering Lab., Pohang University of Science & Technology

Feature-Oriented Product Line Engineering

- Researched model checking with feature transition systems
- Specified & implemented a set of rules to automatically verify consistency between a feature model and other requirements models

Application of Complex Networks in Software Engineering

- Investigated the complex networks structures (small world, scale-free) & formulated a set of software metrics for large-scale software systems
- Applied community detection for software refactoring; presented at ISITCE 2011

RESEARCH INTERN
📅 May – Aug 2007 · 📍 Vietnam

Graphics & Virtual Reality Lab., Institute of Information Technology, Vietnam Academy of Science & Technology

Wavelet Analysis for Image Processing

- Surveyed & applied the wavelet transform to image denoising and compression; implemented a prototype in MATLAB

SELECTED PUBLICATIONS

- Nguyen, Nam D., Ian K. Blaby, and Daifeng Wang (2019). "ManiNetCluster: A Manifold Learning Approach to Reveal Functional Linkage Across Multiple Gene Networks". In: *Oxford Bioinformatics (Under Review), bioRxiv (2018): 470195.*
- Nguyen, Nam D. and Daifeng Wang (2019). "Joint Parametric Manifold Alignment and Clustering for Multi-omics Data". In: *Preparation for ISMB 2019.*

HONORS & AWARDS

- 🏆 **Best Poster** *"A Manifold Learning Approach to Reveal Functional Linkage Across Gene Networks"* ACM-BCB 2018, USA
- **VEF Doctoral Fellowship** The US National Academy of Sciences 2016, USA
- **Research Scholarship** National Research Foundation of Korea 2011, S.Korea
- **Scholarship for Excellent Student** Ministry of Education & Training 2010, Vietnam

SKILLS & LANGUAGES

Python · R · MATLAB ●●●●●
Bash · AWK · Vim · Git ●●●●○
Java · UML · OOAD ●●●●○

English ●●●●● · French ●●○○○

RESEARCH INTERESTS

Machine Learning · Network Science
Computational Biology · Optimization

EDUCATION

PhD Candidate in Computer Science
Stony Brook University
📅 Aug 2016 – Present · 📍 USA · GPA 3.84/4.00

Relevant Coursework: Machine Learning
Convex Optimization · Data Science
Analysis of Algorithm

BEng in Computer Science
Hanoi University of Science & Technology
Aug 2005 – May 2010 · Vietnam · GPA 3.16/4.00
Relevant Coursework:
Linear Algebra · Probability & Statistics
Numerical Methods
Software Design & Development
Digital Signal Processing

IBM Certified Solution Designer
Application Developer · DB2
Coursera Certified Game Theory
Social Network Analysis