NGOC MAI TRAN

Data-driven mathematician

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http://web.ma.utexas.edu/users/ntran/ github.com/princengoc bitbucket.org/princengoc

ACADEMIC EXPERIENCE

Assistant Professor
Dept. of Mathematics, UT Austin

📅 2017 – 2022 (on-leave) 📍 Austin, TX

W-2 Professor
University of Bonn

📅 July 2015 – July 2017 📍 Bonn, Germany

- Combinatorial geometry, optimization & statistics
- High-impact work: algorithms for neuron tracking, causal inference for extreme events, optimization of EMS fleet for city of Austin, solved 10-years-old conjecture in game theory
- Lead seven separate projects. Advise grads and undergrads. Graduate 2 PhDs (UT Austin) and 5 masters (Bonn)

INDUSTRY EXPERIENCE

Quant Researcher
Chicago Trading Company

📅 2021 – current 📍 Chicago, USA

- Portfolio optimization, alpha research, algorithms optimization

Statistics consultant
WWF, WHO

📅 2007 – 2013 📍 Sydney, Australia / Hanoi, Vietnam

- Clients: World Health Organization, World Wildlife Foundation, the Australian Research Council.

Statistician
Brain Resource Company

📅 2007 – 2008 📍 Sydney, Australia

- Experiment design, wrote algorithms to parse EEG/ECG data

WINNER OF DATA COMPETITIONS

2nd place winner
IEEE BigData Cup (Science4Cast)

📅 2021 📍 Worldwide

- Predict future links in a semantic network.
- Techniques used: graph neural networks, classification, recommendations systems, random walks ranking.
- Soluion trained in 15 minutes on personal laptop.

MOST PROUD OF

🏆 **Wide range of problems I've solved**
from pure math conjectures to practical problems in electrode arrays

📈 **My students' growth**
Some are now in PhD programs at MIT, Berkeley, Michigan, ETH, MPI; others work for Federal Reserve, Citadel, Chicago Trading Company, Westpac
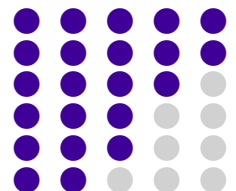
STRENGTHS

Abstract & generalize · Problem solver · Do-er · Method agnostic, outcome-focused · Efficient · Enthusiastic · Team leader · Consultant

Machine Learning · Statistics · Mathematics

LANGUAGES

Python ●●●●●
R ●●●●●
Linux ●●●●○
Scala ●●●○○
Java ●●●○○
Julia ●●○○○

EDUCATION

PhD in Statistics
UC Berkeley

📅 2009–2013

B Sc (Hons) in Mathematics
University of Melbourne, Australia

📅 2007 – 2008

B Math.
University of Newcastle, Australia

📅 2005 – 2007