

Thang Huynh

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EDUCATION

NEW YORK UNIVERSITY

Ph.D. in Mathematics
June 2016 | New York, NY
Advisor: Sinan Güntürk

ST LAWRENCE UNIVERSITY

B.S. in Mathematics
May 2010 | Canton, NY
Summa Cum Laude

SKILLS

PROGRAMMING

- Python: NumPy, Pandas, scikit-learn, SciPy, seaborn, matplotlib
- Matlab
- Familiar with AWS, TensorFlow, and Keras

SIGNAL PROCESSING

- Data compression
- Quantization
- Sparse recovery

MACHINE LEARNING

- Dimensionality reduction
- Randomized algorithms
- Low rank matrix recovery

DIGITAL MARKETING

Facebook Advertising:

- Data analysis
- Optimization and scaling
- Sales funnel

eCommerce:

- Product research
- A/B testing
- Conversion Rate Optimization

COURSEWORK

- Deep Learning - Udacity Nanodegree
- Analytical Methods in Computer Science
- Randomized Algorithms
- Mathematical Signal Processing
- Metric Embeddings
- Numerical methods
- Applied Probability

LINKS

LinkedIn: [linkedin.com/in/thanglehuynh](https://www.linkedin.com/in/thanglehuynh)

EXPERIENCE

UC SAN DIEGO | S.E.W. Visiting Assistant Professor

July 2016 - Present | La Jolla, CA | Mentor: Rayan Saab

- Research binary embedding problems in Machine Learning, and analog-to-digital conversion methods in Mathematical Signal Processing.
- Achieve the first binary embedding that applies to fast Johnson-Lindenstrauss maps while also preserving Euclidean distances. Resulting paper is accepted by a top applied math journal.
- Explore quantization methods for nearest neighbor search problems.
- Collaborate with electrical engineers to develop quantization methods for wireless communications.
- Implement several problems in signal processing and machine learning (e.g., compressed sensing, phase retrieval, etc.).
- Teach courses on data science, numerical linear algebra, differential equations, and calculus.

UNIDONI LLC | Founder and Owner

May 2017 - Present | San Diego, CA

- Scale our ecommerce business from zero to \$1M revenue in eight months.
- Develop comprehensive strategies and marketing campaigns.
- Research the latest data science techniques for big data, and apply them to our product analytics methodologies.
- Analyze data on a daily basis using Facebook Analytics and Google Analytics to understand our consumer behavior, and to determine success or failure of our marketing campaigns.
- Be responsible for A/B testing and conversion rate optimization on marketing campaigns and paid landing pages.
- Execute across a variety of digital marketing channels, including but not limited to: Facebook, Instagram, Google, SEM, SEO, and emails.
- Manage a team of digital strategists, designers, and customer support specialists.
- Create, track, test, and analyze email marketing campaigns using Klaviyo.

NEW YORK UNIVERSITY | Research and Teaching Assistant

Sep 2011 - Dec 2015 | New York, NY

- Explored quantization theory and analog-to-digital conversion methods.
- Extended the noise-shaping quantization to random partial Fourier matrices supporting fast matrix-vector multiplication.
- Implemented ADC methods in the settings of sparse recovery and low rank matrix recovery by using spgl1 and cvx packages in MATLAB.
- Taught introductory undergraduate mathematics. Planned lessons and assignments, led discussion sections, graded quizzes and exams.

HONORS, AND AWARDS

2010–2015	Henry MacCracken Fellowship, NYU	Full tuition and stipend
2010	Bates Award in Mathematics, SLU	For top student in math

SELECTED PUBLICATION

- [1] Thang Huynh and Rayan Saab. Fast binary embeddings, and quantized compressed sensing with structured matrices. *Communications on Pure and Applied Mathematics*, To Appear, [arXiv:1801.08639](https://arxiv.org/abs/1801.08639).