Khoi Huynh

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EDUCATION

08/2017 – Present **PhD candidate**, *The University of North Carolina at Chapel Hill*, Chapel Hill, USA.
Biomedical Engineering

09/2012 – 07/2016 **Bachelor of Engineer**, *International University*, Ho Chi Minh City, Vietnam, GPA: 3.53/4.00 - 1st class honor.
Biomedical Engineering

AWARDS & CERTIFICATIONS

Spring-2020 UNC Graduate Student Transportation Grant
Spring-2020 UNC-BME Travel Award
Fall-2019 UNC-BME Travel Award
2019 MICCAI 2019 Graduate Student Travel Award
Spring-2019 UNC-BME Travel Award
2019 ISMRM Educational Stipend Award
2018 ISMRM Educational Stipend Award
05/2017 UNC Graduate Research Assistant Award
12/2014 Pony Chung Scholarship
2013 - 2016 Dean's List
08/2012 International University Entrance Scholarship

RESEARCH EXPERIENCE

08/2017 – Present **Graduate Research Assistant**, *The University of North Carolina at Chapel Hill*, Chapel Hill, USA.
Diffusion MRI Processing and Analysis

10/2013 – 09/2016 **Undergraduate Research Assistant**, *International University*, Ho Chi Minh City, Vietnam.
Functional MRI Processing and Analysis

RESEARCH INTERESTS

MR Physics MRI Reconstruction, Signal Representation, Noise Removal
Diffusion MRI Microstructure, Tractography, Harmonization, Infant Brain Atlas, Diffusion Model, Connectivity
Neuroscience Infant Brain Structural and Functional Development

SKILLS

Programming **Languages:** C++, MATLAB, Bash script, Python, R, Assembly, LaTeX

Packages: FSL, SPM, MRTrix, ANTS, DWITK, MITK, Freesurfer

PUBLICATIONS

Journal [J2] *Probing Tissue Microarchitecture of the Baby Brain via Spherical Mean Spectrum Imaging*, IEEE Transactions on Medical Imaging, 2020. **Khoi Minh Huynh**, Tiantian Xu, Ye Wu, Xifeng Wang, Geng Chen, Haiyong Wu, Kim-Han Thung, Weili Lin, Dinggang Shen, and Pew-Thian Yap

[J1] *Multi-Site Harmonization of Diffusion MRI Data via Method of Moments*, IEEE Transactions on Medical Imaging, 2019. **Khoi Minh Huynh**, Geng Chen, Ye Wu, Dinggang Shen, and Pew-Thian Yap

Workshop [W1] *Longitudinal Harmonization for Improving Tractography in Baby Diffusion MRI*, CDMRI 2018 (MICCAI Workshop), Granada, Spain, Sep. 20, 2018. **Khoi Minh Huynh**, Geng Chen, Ye Wu, Dinggang Shen, and Pew-Thian Yap

Conference [C5] *Characterizing Intra-Soma Diffusion with Spherical Mean Spectrum Imaging*, MICCAI 2020, Lima, Peru, Oct. 4-8, 2020. **Khoi Minh Huynh**, Ye Wu, Kim-Han Thung, Sahar Ahmad, Hoyt Patrick Taylor IV, Dinggang Shen, and Pew-Thian Yap

[C4] *Estimating Tissue Microstructure with Undersampled Diffusion Data via Graph Convolutional Neural Networks*, MICCAI 2020, Lima, Peru, Oct. 4-8, 2020. Geng Chen, Yoonmi Hong, Yongqin Zhang, Jaeil Kim, **Khoi Minh Huynh**, Jiquan Ma, Weili Lin, Dinggang Shen, and Pew-Thian Yap

[C3] *Fast Correction of Eddy-Current and Susceptibility-Induced Distortions Using Rotation-Invariant Contrasts*, MICCAI 2020, Lima, Peru, Oct. 4-8, 2020. Sahar Ahmad, Ye Wu, **Khoi Minh Huynh**, Kim-Han Thung, Weili Lin, Dinggang Shen, and Pew-Thian Yap

[C2] *Probing Brain Micro-Architecture by Orientation Distribution Invariant Identification of Diffusion Compartments*, MICCAI 2019, Shenzhen, China, Oct 13-17, 2019. **Khoi Minh Huynh**, Tiantian Xu, Ye Wu, Geng Chen, Kim-Han Thung, Haiyong Wu, Weili Lin, Dinggang Shen, and Pew-Thian Yap, for the UNC/UMN Baby Connectome Project Consortium

[C1] *Characterizing Non-Gaussian Diffusion in Heterogeneously Oriented Tissue Microenvironments*, MICCAI 2019, Shenzhen, China, Oct 13-17, 2019. **Khoi Minh Huynh**, Tiantian Xu, Ye Wu, Kim-Han Thung, Geng Chen, Weili Lin, Dinggang Shen, and Pew-Thian Yap

Abstract [A10] *Dense Temporal Mapping of Cortical Microstructure in the Early Developing Brain*, OHBM 2020, Montreal, Canada, Jun. 26-30, 2020. **Khoi Minh Huynh**, Ye Wu, Kim-Han Thung, Sahar Ahmad, Zhengwang Wu, Weili Lin, Han Zhang, Li Wang, Gang Li, and Pew-Thian Yap

[A9] *Correlation of Myelin Content and Neurite Density in the Early Developing Human Cortex*, OHBM 2020, Montreal, Canada, Jun. 26-30, 2020. **Khoi Minh Huynh**, Sahar Ahmad, Ye Wu, Kim-Han Thung, Zhengwang Wu, Weili Lin, Han Zhang, Li Wang, Gang Li, and Pew-Thian Yap

[A8] *Multivariate Quantification of Brain Development During the First Two Years of Life*, OHBM 2020, Montreal, Canada, Jun. 26-30, 2020. **Khoi Minh Huynh**, Ye Wu, Kim-Han Thung, Sahar Ahmad, Hoyt Patrick Taylor IV, Weili Lin, and Pew-Thian Yap

[A7] *Tackling Degeneracy in Linear Tensor Encoding Diffusion MRI*, 28th ISMRM, Sydney, Australia, Apr. 17-23, 2020. **Khoi Minh Huynh**, Ye Wu, Hoyt Patrick Taylor IV, Weili Lin, and Pew-Thian Yap

[A6] *Quantifying Intra-Soma Diffusion Properties via Spherical Mean Spectrum Imaging*, 28th ISMRM, Sydney, Australia, Apr. 17-23, 2020. **Khoi Minh Huynh**, Ye Wu, Kim-Han Thung, Sahar Ahmad, Hoyt Patrick Taylor IV, Weili Lin, and Pew-Thian Yap

[A5] *Quantifying Tissue Microstructure Non-Gaussianity in the Presence of Fiber Dispersion*, 105th RSNA Scientific Assembly and Annual Meeting, Chicago, USA, Dec. 1-6, 2019. **Khoi Minh Huynh**, Ye Wu, Geng Chen, Kim-Han Thung, Weili Lin, Dinggang Shen, and Pew-Thian Yap

[A4] *Dense Mapping of Microstructural Development in the Human Brain During the First Two Years of Life*, OHBM 2019, Rome, Italy, June 9-13, 2019. **Khoi Minh Huynh**, Ye Wu, Kim-Han Thung, Geng Chen, Weili Lin, Dinggang Shen, and Pew-Thian Yap, for the UNC/UMN Baby Connectome Project Consortium

[A3] *Biases of Microstructure Models in Baby Diffusion MRI*, 27th ISMRM, Montreal, QC, Canada, May 11-16, 2019. **Khoi Minh Huynh**, Ye Wu, Kim-Han Thung, Geng Chen, Weili Lin, Dinggang Shen, and Pew-Thian Yap, for the UNC/UMN Baby Connectome Project Consortium

[A2] *Longitudinal Harmonization of Baby Diffusion MRI Data*, OHBM 2018, Singapore, 17-21 June, 2018. **Khoi Minh Huynh**, Jaeil Kim, Geng Chen, Dinggang Shen, and Pew-Thian Yap

[A1] *Spatially Varying Signal-Drift Correction in Diffusion MRI*, Joint Annual Meeting ISMRM-ESMRMB, Paris, France, 16-21 June 2018. **Khoi Minh Huynh**, Geng Chen, Wei-Tang Chang, Weili Lin, Dinggang Shen, and Pew-Thian Yap

ACADEMIC SERVICES

Reviewer

Journal: NeuroImage, PLoS ONE, IEEE-TCDS, IEEE-TMI

Conference: MICCAI, ISMRM, OHBM, MLMI