

Anton Orlichenko

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EDUCATION

Tulane University, New Orleans, LA, USA

- Ph.D. in Biomedical Engineering Aug 2020 – Present
 - Thesis: Generative Models and Software for Improved Phenotype Prediction and Removal of Demographic Bias in fMRI and Genomics Data
 - Adviser: Dr. Yu-Ping Wang
 - Focus: Deep learning, fMRI, functional connectivity, software, demographics, genomics
 - Cumulative GPA: 3.98 / 4.0
 - Expected Graduation: Dec 2024

Illinois Institute of Technology, Chicago, IL, USA

- B.S. in Electrical and Computer Engineering (Dual Degree) Aug 2006 – Dec 2010
 - Graduated Cum Laude.
 - Cumulative GPA: 3.70 / 4.0
 - Major GPA: 3.87 / 4.0 (CPE), 3.82 / 4.0 (EE)

WORK EXPERIENCE

Community College of Allegheny County, Pittsburgh, PA, USA

- Adjunct faculty in Computer Information Technology department Jan 2018 – Jul 2020
 - Taught introductory programming courses using the Java language
 - Taught web development technologies including HTML 5, JavaScript, and CSS
- Part-time chemistry, physics, and computer programming tutor Aug 2015 – Jul 2021
 - Tutored students in general and organic chemistry, physics, and computer programming
 - Aided students in programming in Java, C, C++, and assembly language
 - Prepared students for exams and helped with labs, projects, and assignments

Motorola, Inc., Schaumburg, IL, USA

- Student Intern Jan 2010 – Dec 2010
 - Designed coverage for complex two-way radio systems
 - Minimized costs of countywide simulcast designs
 - Optimized channel utilization for countywide systems using frequency reuse planning

PUBLICATIONS

JOURNALS

- [1] Orlichenko A, Su KJ, Shen H, Deng HW, and Wang YP. Somatomotor-visual resting state functional connectivity increases after 2 years in the UK Biobank longitudinal cohort. *Journal of Medical Imaging* 11(2), 024010 (12 April 2024).
- [2] Orlichenko A, Daly G, Zhou Z, Liu A, Shen H, Deng HW, Wang YP. ImageNomer: Description of a functional connectivity and omics analysis tool and case study identifying a race confound. *Neuroimage Rep.* Dec 2023 3(4):100191.
- [3] Orlichenko A, Qu G, Zhang G, Patel B, Wilson TW, Stephen JM, Calhoun VD, Wang YP. Latent Similarity Identifies Important Functional Connections for Phenotype Prediction. *IEEE Trans Biomed Eng.* Jun 2023 70(6):1979-1989.
- [4] Peng H, Orlichenko A, Dawe RJ, Agam G, Zhang S, Arfanakis K. Development of a human brain diffusion tensor template. *Neuroimage.* Jul 2009 46(4):967-80.
- [5] Phan KL, Orlichenko A, Boyd E, Angstadt M, Coccaro EF, Liberzon I, Arfanakis K. Preliminary evidence of white matter abnormality in the uncinate fasciculus in generalized social anxiety disorder. *Biol Psychiatry.* Oct 2009 ;66(7):691-4.

CONFERENCES

- [1] Orlichenko A, Qu G, Ziyu Z, Liu A, Shen H, Deng HW, Ding Z, Wang YP, “Low Rank Mixup Augmentations for Contrastive Learning of Phenotypes from Functional Connectivity,” in *Medical Imaging Meets NeurIPS*, New Orleans, LA, USA, Dec 2023.
- [2] Orlichenko A, Ahmadimehr S, Zhang G, Qu G, Ding Z, Wang YP, “Dynamic Dictionary Entries are Rank-1 Functional Connectivity Networks Associated with Maturation,” in *Organization for Human Brain Mapping*, Montreal, Quebec, Canada, Jul 2023.

- [3] Orlichenko A, Daly G, Freeman JW, and Wang YP, “ImageNomer: developing an interactive graphical analysis tool for examining fMRI and omics data”, Proc. SPIE 12468, Medical Imaging 2023: Biomedical Applications in Molecular, Structural, and Functional Imaging, 1246812 (10 April 2023); San Diego, CA, USA.
- [4] Orlichenko A, Qu G, and Wang YP, “Phenotype guided interpretable graph convolutional network analysis of fMRI data reveals changing brain connectivity during adolescence”, Proc. SPIE 12036, Medical Imaging 2022: Biomedical Applications in Molecular, Structural, and Functional Imaging, 1203612 (4 April 2022); San Diego, CA, USA.

AWARDS & SCHOLARSHIPS

- IEEEExtreme 2023 Programming Competition Best in Region Oct 2023
Reached rank 1 in IEEE Region 5 in the IEEEExtreme 17.0 24-hour programming competition.
Scored in the top 15% of teams overall
- SPIE: Medical Imaging Student Travel Award Dec 2022
Seven hundred dollar award for travel to present the “ImageNomer” paper at SPIE: MI 2023 in San Diego.
- Research Experience for Undergraduates Award Jun 2009 – Aug 2009
Paid stipend for summer research based on previous work at the IIT MRI lab.
- Marvin Camras Scholarship, Illinois Institute of Technology 2006 – 2010
Full tuition scholarship based on academic merit.

PROFESSIONAL AFFILIATIONS & ACTIVITIES

- Computer Society Member,**
Institute of Electrical and Electronics Engineers
- Graduate Student Member 2022 – Present

[CV compiled on 2024-04-12]