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 Confounders 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

- IEEEXtreme 2023 Programming Competition Best in Region — Oct 2023
  Reached rank 1 in IEEE Region 5 in the IEEEXtreme 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 2024-04-23*]