PARHAM KAZEMI

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Keywords — Bioinformatics, Algorithms, Natural Language Processing, Deep Learning
Skills — C++, Python, Java, Rust, PyTorch, Keras

EDUCATION

PhD in Bioinformatics - University of British Columbia 2021 - Present

- Supervised by Dr. Inanc Birol
- Member of the Bioinformatics Technology Lab at BC Cancer's Genome Sciences Centre

MSc in Computer Engineering (AI) - University of Isfahan 2019 - 2021

- Supervised by Dr. Hossein Karshenas
- Thesis: Deep Reinforcement Learning for Training Intelligent Agents in Natural Language Environments
- GPA: 18.42/20

BSc in Computer Engineering (Software) - University of Isfahan 2015 - 2019

- Supervised by Dr. Afsaneh Fatemi
- Thesis: Predicting Persian Twitter Users' MBTI Personality Using Text Mining Methods
- GPA: 18.25/20
- Received CEng Faculty's Distinguished Student Award
- Participated in ICPC West Asia Regionals (2016, 2017 ranked 16th)
- Participated in Robocup IranOpen 2D Soccer Simulation League 2017
- Participated in National Computer Engineering Olympiad Finals

EXPERIENCE

Graduate Research Assistant - Canada's Michael Smith Genome Sciences Centre 2021 - Present

- Member of the Bioinformatics Technology Lab (birollab.ca)

Volunteer - Vancouver Bioinformatics User Group, VanBUG 2023 - Present

- Member of the VanBUG development group (vanbug.org)

Teaching Assistant - University of Isfahan 2016 - 2020

- Advanced Programming, Algorithm Design, Artificial Intelligence, Computer Fundamentals, Data Structures, Discrete Mathematics, Technical English

ACM Students Chapter Member - University of Isfahan 2017 - 2019

- Team coach at ICPC West Asia Regionals 2020
- Python course instructor

PROJECTS

ntHash2: recursive spaced seed hashing for nucleotide sequences github.com/bcgsc/ntHash
Lead developer, publication first author

btllib: Bioinformatics Technology Lab common code library github.com/bcgsc/btllib
Developer and maintainer

University of Isfahan's Alumni Social Website
Backend developer

PUBLICATIONS

scholar.google.com/citations?user=-X4UY5QAAAAJ

Nikolić, V., **Kazemi, P.**, Coombe, L., Wong, J., Afshinfard, A., Chu, J., Warren, R. L., & Birol, I. (2022). btllib: A C++ library with Python interface for efficient genomic sequence processing. Journal of Open Source Software, 7(79), 4720. doi.org/10.21105/joss.04720

Kazemi, P., Wong, J., Nikolić, V., Mohamadi, H., Warren, R. L., & Birol, I. (2022). ntHash2: recursive spaced seed hashing for nucleotide sequences. Bioinformatics, 38(20), 4812–4813. doi.org/10.1093/bioinformatics/btac564

Kazemi, P., & Karshenas, H. (2021). Fuzzy Word Sense Induction and Disambiguation. IEEE Transactions on Fuzzy Systems, 30(9), 3918–3927. doi.org/10.1109/tfuzz.2021.3133905

PRESENTATIONS

Kazemi, P., Mohamadi, H., Chu, J., Coombe, L., Warren, R. L., & Birol, I. (2023). ntHits: streaming through raw sequencing data to profile and filter k-mers with selected multiplicities. Poster in the 13th RECOMB Satellite Conference on Biological Sequence Analysis (Istanbul, Turkey).

Kazemi, P., Mohamadi, H., Chu, J., Coombe, L., Warren, R. L., & Birol, I. (2023). ntHits: streaming through raw sequencing data to profile and filter k-mers with selected multiplicities. Poster in the BIG23 Research day at the University of British Columbia (Vancouver, Canada).

Kazemi, P. (2020). Natural language processing: what, how, and why. Presentation at the University of Isfahan's Annual Research Week (Esfahan, Iran).