James Stevenson

http://jsstevenson.github.io

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EXPERIENCE

Nationwide Children's Hospital   *Sep 2020 - Present*
Bioinformatics Software Developer

- Lead development of biomedical concept normalizer software, including Thera-Py and Disease Normalizer. Use Python to perform rapid data ingest methods over millions of records from a variety of biomedical data sources and formats into DynamoDB, PostgreSQL, and Neo4j backends.
- Contribute full-stack development to Drug-Gene Interaction Database and Fusion Builder applications, from data architecture planning to UX/UI evaluation, using Ruby on Rails, Python, and Javascript/Typescript. Provide analyses and produce figures for manuscripts and working papers.
- Develop Rust-based interface to genomic annotation liftover tooling to support variation analysis workflows. Achieved 80% reduction in startup time over existing solution.
- Help define NIH standards for AI-ready biomedical data as a Bridge2AI Standards Workgroup member. Craft expectations for data quality and provenance, workflow reproduceability, and protecting fairness/identifying ethical concerns.

EDUCATION

Georgia Institute of Technology   *Expected May 2024*
Master of Science in Computer Science (Specialization: Machine Learning)

- Relevant coursework: Machine Learning, Deep Learning, Big Data for Healthcare, AI Ethics & Society, Simulation & Modeling

Seattle Central College & University of Washington   *Sep 2017 - Aug 2019*
Non-degree enrollment in Computer Science, Applied Mathematics, Biostatistics

- Relevant coursework: Biostatistics, Linear Algebra & Numerical Methods, Introduction to Scientific Computing, UNIX Tools

University of Puget Sound   *May 2013*
Bachelor of Arts in Philosophy; Politics & Government

PUBLICATIONS

Matthew Cannon, **James Stevenson**, Kathryn Stahl, Rohit Basu, Adam Coffman, Susanna Kiwala, Joshua F McMichael, Kori Kuzma, Dorian Morrissey, Kelsy Cotto, Elaine R Mardis, Obi L Griffith, Malachi Griffith, Alex H Wagner. "DGIdb 5.0: rebuilding the drug–gene interaction database for precision medicine and drug discovery platforms." Nucleic Acids Research, Volume 52, Issue D1, 5 January 2024

Matthew Cannon, **James Stevenson**, Kori Kuzma, Susanna Kiwala, Jeremy L Warner, Obi L Griffith, Malachi Griffith, Alex H Wagner. "Normalization of Drug and Therapeutic Concepts with Thera-Py." JAMIA Open, vol. 7, no. 4 (2023).

CONFERENCE PRESENTATIONS

Cancer Genomics Consortium Annual Meeting, St. Louis, MO   *Aug 2023*
"Overcoming challenges in semantic alignment of therapeutics knowledge using TheraPy"

- Abstract selected for Technologist Travel Award

TEACHING

Instructional Aide (CS7650: Human-Computer Interaction)   *Jan 2021 - Aug 2021*
Georgia Institute of Technology