

David Oniani

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Visit oniani.ai for my papers, software, and more! I also make [YouTube videos](#) about AI and Software Engineering

EDUCATION

• [Luther College](#)

B.A. Computer Science, Mathematics (magna cum laude)

Decorah, IA

Aug. 2017 – May. 2021

TECHNICAL SKILLS

- Languages: Python, Rust, Shell Script, Modern C++, PostgreSQL, Lua, Haskell, JavaScript, HTML, CSS
- Tools and Libraries: Linux, Neovim, Git, Docker, PyTorch, Transformers, scikit-learn, matplotlib, numpy, pandas, Flask, Zola
- Theory: Applied Statistics, Deep Learning, Information Theory, Linear Algebra, Multivariable Calculus, Real Analysis, Topology
- Other Skills: \LaTeX , Markdown, Technical Writing

WORK EXPERIENCE

• [University of Pittsburgh](#)

Machine Learning Research Scientist

Work Remotely from Brooklyn, NY

Feb. 2022 – Present

- First-authored papers accepted at major AI/ML and health informatics conferences and journals
- Led engineering and system design efforts for CDM-compliant research data warehouse (ReDWINE)
- Automated [Extract, Transform, Load \(ETL\)](#) pipelines manipulating hundreds of GBs of data
- Researched [Few-Shot Learning](#) and [Transformers](#) for accurate and efficient text classification

• [DawnLight](#)

Research Engineer

Palo Alto, CA

Apr. 2021 – Jan. 2022

- Developed and maintained AI sensing inference runtime for audio and radar (C++ codebase)
- Architected and trained highly performant [CNN](#)-based DL model for human activity detection
- Implemented Python APIs and data engineering pipelines for interacting with data platforms
- Together with Principal Scientist, wrote C++ library of signal processing algorithms (libdsp)
- [DawnLight](#) was [Sequoia Capital](#) Backed Ambient Intelligence and Edge Computing Startup

• [Mayo Clinic](#)

Artificial Intelligence Researcher

Rochester, MN

Feb. 2020 – Sept. 2020

- First-authored papers accepted at leading AI and health informatics conferences and journals
- Built [chatbot](#) as extension of GPT-2 model by applying [BERT](#), BioBERT, USE, and [tf-idf](#)
- Utilized [node2vec](#) for generating COVID-19 network embeddings and built [co-occurrence network](#)
- Worked directly under [Dr. Feichen Shen](#) and [Dr. Yanshan Wang](#) in division of [Dr. Hongfang Liu](#)

SELECT PUBLICATIONS

- [A Qualitative Evaluation of Language Models on Automatic Question-Answering for COVID-19](#)
Proceedings of the 11th ACM International Conference on Bioinformatics, Computational Biology and Health Informatics (ACM-BCB), 2020
First Author, 30 citations
- [Constructing Co-occurrence Network Embeddings to Assist Association Extraction for COVID-19 and Other Coronavirus Infectious Diseases](#)
Journal of the American Medical Informatics Association (JAMIA), 2020
First Author, 19 citations
- [Toward Improving Health Literacy in Patient Education Materials with Neural Machine Translation Models](#)
American Medical Informatics Association (AMIA) Informatics Summit, 2023
First Author
- [Social and Behavioral Determinants of Health in the Era of Artificial Intelligence with Electronic Health Records: A Scoping Review](#)
Health Data Science (HDS), 2021
Co-Author

HONORS AND AWARDS

- National Interest Waiver (NIW) Green Card Immigrant Petition Approval for [Exceptional Ability](#), USCIS (2022)
- Dean's List Recipient, [Luther College](#) (2017 – 2021)
- Recipient of Multiple Highly Competitive Scholarships, [Luther College](#) (2017 – 2020)
- Recipient of 2 Dean's Office Summer Research Awards, [Luther College](#) (2018, 2019)
- Gold Medal for Academic Excellence, [Ministry of Education and Science of Georgia](#) (2016)
- Multiple-Time Finalist, [National Mathematics Olympiad of Georgia](#) (2011 – 2016)
- 7th Place (TOP 10), [National Mathematics Olympiad of Georgia](#) (2014)
- IMO & IPhO Nominee, [Ministry of Education and Science of Georgia](#), (2014)