

AIDAN M. MOKALLA

linkedin.com/in/Aidan-Mokalla

aidanmokalla.github.io

AidanMokalla@gmail.com

EDUCATION ---

Reed College, Portland, Oregon, USA, GPA: 3.6/4
2025

+ Spanish minor, sole member of graduating class with double majors -- Computer Science & Linguistics,

Bryn Mawr College, Dushanbe, Tajikistan, 2024

+ Fellowship funded by international non-profit *American Councils* to research Persian language varieties,

La Universidad de Carlos III and **Middlebury College**, Madrid, Spain, 2023

+ Spanish-language courses including International IP Law, Data Science, and Reinforcement Learning.

PUBLICATION ---

Source of the Storm: Interpreting Deep Weather Models to Detect Cyclogenesis, *forthcoming*

+ Evaluating novel weather prediction model interpretation method to improve localization of rare climatic events,

Network Agnostic Consensus: Tight Bounds across Fault Models, *with* Erica Blum, TCC 2026

+ Proved tight running-time bounds for all algorithms achieving network-agnostic Byzantine consensus,

Language-Agnostic Concept Spaces Found in Large Language Models, *thesis, with* Greg Anderson 2025

+ Designed, implemented, and evaluated novel architecture to interpret transformer-based LLMs by leveraging natural-language translation of ground-truth semantics. My approach learns convergent “concept spaces” over LLM activations in parallel, yielding more meaningful LLM interpretations than prior work,

Modulated Signal Filtering: Wouldn't it be Noise?, *thesis, with* Sameer ud Dowla Khan, 2025

+ Collected over 3,000 participant responses to investigate how listeners use unique cognitive strategies to parse spoken speech versus song lyrics using deep autoregressive analytic methods,

+ Demonstrated how we use contextually-differentiated mechanisms to filter noise from the linguistic signal by making significantly better predictions of how people interpret unclear speech within the *Noisy Channel Model*.

LEADERSHIP & EXPERIENCE ---

AlgoVerse AI Research, *Machine Learning Researcher & Mentor* *September 2025 – present*

+ Investigating and publishing methods of explainable AI and climate science, mentoring undergraduate researchers,

Linguistic Diversity Initiative, *Lead Volunteer Ambassador*, *June 2023 – August 2025*

+ Leading a team of three translators, I compiled and published dictionaries of terminology used in Portland Public's science curricula, translated into 6 languages, for households with low English proficiency, already enabling over 800 families to engage in their students' education,

+ Taught seminars to students and faculty about sociolinguistic research on language use in undergraduate settings,

+ Organized and lead twice-monthly meetings of over 50 volunteers and larger events,

Reed College Student Body, *Senator & Honor Councillor*, *September 2021 – May 2025*

+ Peer-elected to serve in faculty committees including the *Committee on Academic Policies and Planning* and *Committee on Computer Policy and Planning*, disburse 6-figure Student Body Fund and other resources to college organizations, and interview and hire all student applicants for on-campus roles,

+ Mediated and resolved conflicts between students, professors, and other members of the college community,

Stoel Rives, LLC, *Intern Practise Assistant*, *May – August 2022*

+ Implemented compliant automation of docketing, court appearances, and other events from firm-wide databases,

+ Maintained communication on behalf of attorneys while drafting and proofreading attorney correspondences.

SKILLS & ACCOLADES ---

Computational: Python, various data and NLP pipelines, PyTorch, NumPy, JS, Next.js, C++, PHP, SQL, Swift,

Awards: Presidential Commendation for Academic Excellence, Reed College Music Scholarship, National Diversity in STEM Grant, Department of State Critical Languages Scholarship,

Certifications: Federally eligible for non-competitive civil service, licensed in Conflict Mediation & Resolution, CPR,

Languages: Fluent Spanish, English, intermediate Farsi, Tajik, French, basic Portuguese, Dari, Chinese (Mandarin).