AIDAN M. MOKALLA

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UNDERGRADUATE EDUCATION

GPA: 3.7/4

Reed College, Portland, Oregon, USA,

2025

+ Spanish minor, sole member of graduating class with double majors (Computer Science and Linguistics)

Bryn Mawr College, Dushanbe, Tajikistan,

2024

+ Fellowship funded by the 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 Law, Data Science, and Reinforcement Learning.

ACADEMIC PUBLICATION

Adversarial Robustness against Subliminal Learning Attacks, with Jannik Brinkmann,

forthcoming

+ Developing deep method of ablating obfuscated dangers in post-training data for large language models (LLMs),

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

Linguistic Diversity Initiative, Lead Volunteer Ambassador,

June 2023 – present

- + Leading a team of seven translators, I compiled and published dictionaries of all scientific terminology used in Portland Public's 5th grade science curricula, translated from English into 5 languages, for households with low English proficiency, already enabling over 800 families in Portland to engage in their students' science educations,
- + Taught seminars to students and faculty about ongoing research on language use within the classroom and without,
- + Organize and lead twice-monthly events and meetings of over 50 volunteers,

Reed College Student Body, Senator & Honor Councillor,

September 2021 – May 2025

- + Peer-elected to serve in faculty committees including the college's *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 events, 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,

STEM Outreach Program, Elementary Science Teacher,

August 2021 – May 2025

+ Taught weekly 5th grade physical and environmental science classes at Earl Boyles Elementary, Portland Public,

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, Languages: Fluent Spanish, English, intermediate Farsi, Tajik, French, basic Portuguese, Dari, Chinese (Mandarin), Certifications: Federally eligible for non-competitive civil service, licensed in Conflict Mediation & Resolution, CPR, Awards: Presidential Commendation for Academic Excellence, Reed College Music Scholarship, National Diversity in STEM Grant, Department of State Critical Languages Scholarship.