SODI KROEHLER

CURRICULUM VITAE

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EDUCATION

MS University of Pittsburgh,

Computer Science, Focus on Al Ethics Jan. 2021 - Dec 2025

3.4 GPA

BS University of Pittsburgh,
Majored in Computer Science
Minored in Philosophy
3.5 GPA

Jan. 2021 - May 2023

BS Taylor University, Majored in Digital Media Aug. 2019 – Dec. 2020 3.7 GPA

PUBLICATIONS AND WORKS

Kroehler, S., Lin, Y., Li, L. "Automatic News Media Framing Inference by Ambivalence Mapping", Dec 2025 (*Thesis, In Progress*)

Silva, E., Franz, M., Kroehler, S. "Lessons Learned from Red Teaming a Newsbot", Jun 2025 (Analysis, Published June 2025, Tech Policy Press)

Kroehler, S., Gautam, A. "Prediction in Evolutionary Ethics: Towards Normative Autonomous Agents", Apr 2024 (*Graduate Term Paper, Unpublished*)

Kroehler, S., Benjamin, S., and Alikhani M., "Analyzing the Effects of Digital Language Contact on Hindi Language Degradation", Apr 2022 (*Undergraduate Term Paper*, *Unpublished*)

PROFESSIONAL EXPERIENCE

Taylor University Media Services Department *Lead Video Technician*

Aug. 2019 – Dec. 2020 Upland, IN Developed strategy to migrate terabytes of sensitive video files, with zero loss Architected a relational database using MS Access for user activity on the university's media server, also integrating with previously existing records, enabling the removal of over 500 duplicate or unused files

Managed a team of two other students to record and make available online all academic events

Produced, shot, and edited films to stimulate admissions growth during an enrollment recession.

BNY Mellon Bank

May – Aug. 2022

S.T.A.R.T Intern - Pittsburgh, PA

Pittsburgh, PA

Developed, tested, and implemented an R script to optimize ETL process coordination, using various ML algorithms.

Managed the migration of job management software for around 50 employees across two teams.

BNY Mellon Bank

Aug 2023 - Feb. 2025

S.E.T.U.P. Early Career Associate

Pittsburgh, PA

Learned, developed and maintained key integrations between the Bank's Oracle HCM platform and external organizations, ensuring consistent, compliant HR data flows. Initiated and successfully deployed a Power Platform-based redesign to an internal application for employee idea submission, a project sponsored by senior management. Built integrations across SharePoint, Outlook, Teams, Power BI, Automate, and Power Apps — learning and applying the full Microsoft stack for the project.

Built multiple proofs-of-concept (POCs) to improve HR operations, including a resume screener, skill matcher, and performance management enhancer. Projects included Oracle Digital Assistant integrations and adhered to strict regulatory and ethical compliance standards.

Initiated and developed a project to enhance software development team agility across Corporate Engineering, with a vision for company-wide adoption. Leveraged Power BI, various data sources (API/database), and an LLM-based component for improved documentation and SDLC conformity.

BNY Bank Feb – Jun. 2025

Full-Stack Developer

Pittsburgh, PA

Promoted to Full-Stack Developer immediately at the end of the Early Career program. Became lead Al developer for the global People Team's HR chatbot (serving 50,000+ employees). Designed orchestration and backend systems, managed risk and compliance, and managed Jira workflows. Led team meetings of 50+ and was involved regularly in executive-level discussions (CEO-2 level).

Continue to manage and redesign critical Oracle HCM & OIC ETL integrations reducing run time of integral HR processes by as much as 93% in some cases.

Organized an internal AI hackathon and led biweekly reverse-mentorship sessions to guide senior leadership on practical AI adoption.

PICSO Computational Social Dynamics Lab

Sep 2025– Present

Full-Stack Developer

Pittsburgh, PA

Participated in research discussions and presented academic papers during lab meetings. Collaborated on exploratory work in computational social science with other lab members.

School of Computing at Pitt Budgetary Committee

Oct 2023- Present

Graduate Student Representative

Pittsburgh, PA

Represented graduate student interests in departmental budget discussions and attended regular committee meetings and reviews.

COMMUNITY SERVICE

South Sudan Rebirth Ministry

Feb. 2022 – Present

Chief Technology Officer

Lancaster, PA

Completely redesigned and updated their website, including installing and integrating a new payment system

Created several custom solutions for recording applications and funds transfers.

TECHNICAL SKILLS

Programming: C/C++, Java, R, Rust, Python, HTML/CSS/JS/TS, SQL, \

Applications/Frameworks: React, Docker/Kubernetes, Adobe Suite, MS Suite, MS

Power Platform (including Power BI),

Libraries: TidyVerse, pyTorch, tensorFlow,

OTHER

Personal Project - "Chitters" online card game

Jun. 2020 – Present

www.chitters.net

CEO/Sole Developer

Solely created an online card game, using NodeJS backend and a React Native front end. Integrated with several other third-party libraries such as NextAuth, Stripe, the GSuite API, S2 Buckets and other AWS products, Tailwind, Prisma, Expo and Pusher/RTC technologies. Play is similar to the popular card game Cards Against Humanity, but utilizing gifs instead of text, and is designed to measure the ethical limits that participants assume to be held by the others in their game.

CARDUI – Python LLM Utility Library

Jun. 2025 – Present

Principal Developer & Maintainer

Actively maintain an open-source Python library for streamlined interaction with major LLM providers (OpenAl, Anthropic, Mistral, etc.).

Built features for in-prompt batching and seamless integration with pandas DataFrames, reducing boilerplate and improving performance in prompt-based workflows.

Designed with modularity and research usability in mind; used in lab and personal projects for large-scale LLM experimentation.

Alpha Kappa Psi

Mar. 2021 - May 2023

Director of I

Pittsburgh, PA

Completely redesigned the chapter's website and created numerous videos and other promotional materials, as well as offered some introductory programming lessons.

HONORS AND AWARDS

Hollar Educational Trust

2019

Granted to Pennsylvanian students with financial need who overcame significant barriers to pursuing education.