Daniel Zhu

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EDUCATION

UNIVERSITY OF WASHINGTON | BS in Computer Science, Minor in Entrepreneurship
Sep 2018 - Jun 2021 | Seattle, WA | GPA: 3.94 / 4.0
Direct Admit into Paul G. Allen School of Computer Science

EXPERIENCE

SENIOR DATA SCIENTIST | Pendulum
Nov 2021 - Present | Seattle, WA

- Leveraged **reAct and chain-of-thought prompting with LLMs** for search boolean query generation, topic name generation and summarization, and narrative / stance classification, leading to the company's first LLM-powered product features
- **Fine-tuned BERT models for classifying high-risk communities** (conspiracy, QAnon, anti-SJW, etc.) for 4+ million social media channels across YouTube, TikTok, X, and more platforms, successfully identifying over 50,000 high-risk channels
- Designed and developed a model to generate **embeddings for social media channels**, facilitating the discovery of similar channels across multiple platforms
- Architected and implemented an **adaptive data ingestion system** for TikTok, which assessed the value of a channel to prioritize and collect high-risk content efficiently, reducing operational costs significantly

CO-FOUNDER / CEO | VerbalEyes
Jan 2021 - Nov 2021 | Seattle, WA

- VerbalEyes aimed to make the world's digital video content accessible for both humans and computers
- Led a company of 12 across customer research, business strategy, design, and engineering **multi-modal ML systems for automated video narration**
- Completed 112 end user engagements, partnered with the Washington State Audio Description Project to expand audio description efforts at 8 higher education institutions, and was awarded $26,750 in funding
- **Inaugural fellow at Madrona Venture Labs** for summer 2021, became the first employee at another startup in the lab

TEACHING ASSISTANT | University of Washington
Mar 2021 - Jun 2021 | Seattle, WA

- Taught office hours, created discussion materials, and graded homework for **CSE 446 (Machine Learning)**

SOFTWARE DEVELOPMENT ENGINEER INTERN | Amazon
Jun 2020 - Sep 2020 | Seattle, WA

- Implemented a distributed index for Amazon's largest datalake reducing the computational cost of querying tables by 90%

AI RESEARCH FELLOW | Giving Tech Labs
Sep 2019 - Jun 2020 | Seattle, WA

- Constructed a **social impact funding knowledge graph** from unstructured web data, powering social sector market insights
- Trained a deep neural network to classify documents to the most relevant UN SDG at 78% accuracy

PUBLICATIONS

[1] L. Jiang* and **D. Zhu***. VerbalEyes: A Large-Scale Inquiry into the State of Audio Description. *CMD-IT/ACM Richard Tapia Celebration of Diversity in Computing Conference*, 2021. [PDF]. * denotes equal contribution.

[2] Y. Li, V. Zakhozhyi, **D. Zhu**, and L. J. Salazar. Domain Specific Knowledge Graphs as a Service to the Public: Powering Social-Impact Funding in the US. *In Proceedings of the 26th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD '20)*, 2020. [PDF].

AWARDS/SKILLS

AWARDS/HONORS

2021	1st Place Tapia Undergrad Poster Competition
2021	Inaugural MVL Entrepreneurship Fellow
2021	Dempsey Startup Competition Top 16
2021	Google CS Research Mentorship Program
2020	Giving Tech Labs Distinguished Research Fellow

SKILLS

Languages
Python • SQL • Javascript • Java
Technologies
AWS • PyTorch • PySpark • HuggingFace • Scikit-learn • MetaFlow • FAISS • Weights & Biases