

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 GPT-4** 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.
- [2] Y. Li, V. Zakhozhyy, **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.

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 • Weights & Biases • MetaFlow • Scikit-learn •
HuggingFace • PyTorch • FAISS • PySpark