PREETI MOHAN

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EDUCATION

University of Washington
M.S. Computational Linguistics 2020
Thesis: An Analysis of Gender Bias in K-12 Assigned Literature Through Comparison of Non-Contextual Word Embedding Models
Advised by Professor Emily M. Bender

University of Michigan- Ann Arbor
B.S. Computer Science 2017
B.S. Cognitive Science 2017
Dual Major focusing on coursework in Machine Learning, Artificial Intelligence, Philosophy, Psychology, Linguistics, and Mathematics

SUMMARY

Hello there! I'm a software engineer, cognitive scientist, linguist, and musician focusing on issues in social good, natural language processing, ethical and transparent AI, educational systems, accessibility, and creativity.

EMPLOYMENT

GOOGLE — Seattle, WA
Software Engineer II - Cerebra Speech Intelligence — May 2021 to Current
- Analyzed impact on automated English to Spanish text translation when linguistic disfluencies are removed from source data to be translated. Showed that there is a meaningful impact in BLEU scores when disfluencies are removed from text before being translated.
- Wrote and managed various model training pipelines in Tensorflow.
- Wrote data analysis pipelines in C++ and Python.

GOOGLE — Kirkland, WA
Software Engineer II - Android Messages — Jan. 2020 to May 2021
- Designed, developed, and contributed to parts of the Android Messaging "Smarts" system, such as smart sticker suggestions, conversation starters, and scheduling file downloads
- Wrote new grammars and rewrote old ones for triggering various Smarts scenarios, such as weather suggestions or seasonally relevant stickers
- Improved end-to-end testing infrastructure by getting rid of "faked out" implementations
- Worked as a part of the Magenta team on "Music++", a project for mood-based music generation

WELLSAID LABS — Seattle, WA
Deep Learning Engineer — Aug. 2019 to Oct. 2019
- Researched novel deep learning methods to improve Wellsaid's text-to-speech editor
- Trained text-to-speech models on new voices for the editor
- Lead company-wide ethics and transparency meetings to guide the direction of the product and business
- Assisted in managing the Google Cloud Platform research infrastructure

MICROSOFT — Bellevue, WA
Software Engineer - Cortana — Aug. 2017 to Aug. 2019
- Worked extensively on improving accessibility and usability for the Cortana desktop and mobile user interfaces
- Enabled integration of Cortana with NPR podcasts and radio
- Assisted with integrations, feature-work, and bug-fixes for other third party services such as Spotify, IHeartRadio, and Tunein
- Analyzed data relating to Cortana skill execution and ambiguity
- Served on steering committee for team's support group for women and minorities, helping to organize panels and events

MICROSOFT — Redmond, WA
Software Development Engineer Intern — May 2016 to Aug. 2016
- Interned on the Outlook Engineering team, working on the backend and UI of the system
- Worked on the "Tailored Experiences" feature for Outlook, creating an intuitive collapsible UI for travel, package, hotel, and car rental itineraries.

ACTIVITIES

IEEE STANDARDS ASSOCIATION · Committee Member — Sept. 2016 to Oct. 2017
Serve as a contributing member on several committees for standard creation, including
- P7000: Model Process for Addressing Ethical Concerns During System Design
- P7001: Transparency of Autonomous Systems
- Global Initiative for the Ethical Consideration and Design of Autonomous Systems
- Attended the June 2017 Ethics for Autonomous Systems Conference in Austin, TX to assist with drafting the second version of Ethically Aligned Design, a document focused on standards for corporations and governments to ensure autonomous systems conform to ethical and transparent standards

MHACKS HACKATHON · Head of Mentorship; Organizer, Women@MHacks and Tech Team (Web) — Apr. 2015 to Apr. 2017
- Led a team to successfully redesign the MHacks mentorship system, making sure hackers got the best help experience they could, while making the mentorship experience accessible to both experienced and inexperienced mentors
- Assisted in the internal operations of the hackathon, serving as a member of the leadership team to make crucial decisions about the running and functioning of the event

PROJECTS

MECHANICAL KEYBOARD FIRMWARE ENGINEER (FREELANCE) — Current
- Worked on the upcoming "Pancake" rotary encoder from company American Haptics
- Work on mechanical keyboard firmware design and coding projects as a part of the hobbyist community

SOLO MUSICAL ARTIST — Current
Composed, recorded, and released video-game inspired metal music as a solo artist on Spotify, Bandcamp, and Apple Music

SKILLS

LANGUAGES: C++/C, Java, JavaScript, HTML5/CSS3, Python, SQL, C#
FRAMEWORKS/PACKAGES: NLTK, NodeJS, JQuery, JSP, MongoDB, Bootstrap, SciPy, PyTorch, Tensorflow
SOFTWARE: Autodesk 3DS Max, Adobe Photoshop, REAPER