Cleah Winston

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Education

University of Washington, Seattle	**September 2022 – June 2026 (B.S.)**
B.S./M.S. in Computer Science (Direct Admit) // UW Dean's List (AU22, WI24, WI25)	**September 2026 – June 2027 (M.S.)**

- **Related Coursework**: Machine Learning, Deep Learning, Computer Vision, Algorithms, Robotics, Data Structures

GPA: 3.80

Work Experience

Supio [Software Engineering Intern] — **June 2025 – September 2025**
- Designed and built end-to-end platform with AWS orchestration layer for large-scale training of intent classifiers with LLM-based data generation methods.

Neurophys [Software Developer] — **Aug. 2024 – Present**
Best Idea Prize in Digital Health @ Holloman Health Innovation Challenge 2025
- Designing AI-based technology for smart at-home rehabilitation plans.

Paul Allen School of Computer Science, UW [Teaching Assistant] — **Aug. 2023 – Present**
Discrete Math (CSE 311), Probability & Statistics (CSE 312), Machine Learning (CSE 446)
- Lead class groups (~30 students), office hours, and review sessions.

Banyan Computing [Backend Software Developer Intern] — **June 2022 – Sept. 2022** / **Sept. 2021 – April 2022**
- Built Julia script-saving system and software for managing AWS cloud spending.

Research Projects

Off-Policy Generative Policy Optimization [UW CSE] — **September 2025 – Present**
Abhishek Gupta (PhD, UW CSE); WEIRD Lab, UW
- Evaluated method for improving sample efficiency of online RL by increasing data utilization and allowing for greater policy expressivity.

Improving Robustness of Imitation Learning on OOD Data using Offline RL [UW CSE] — **June 2024 – Present**
Abhishek Gupta (PhD, UW CSE); WEIRD Lab, UW
In review @ ICRA 2026
- Leveraged methods to broaden the support offline reinforcement learning policy distribution to improve success with low-quality/quantity data coverage.
- Improved task completion across Franka tasks and simulation by ~30%.

Large Language Models for Medical History Generation [UW CSE, Stanford, UPenn] — **Oct. 2023 – Sept. 2024**
2024 International Conference of Health Informatics
Poster @ 2024 GenAI4Health Workshop, NeurIPS
2nd @ MD Plus Datathon on value-based care
- Improved chief complaint embedding methods for clinical prediction tasks.
- Tested novel methods to improve LLM ability to take a relevant patient history.

Improving Robotic Car Navigation Algorithms [UW CSE] — **Sept. 2022 – May 2024**
Alex Spitzer & Dr. Byron Boots (Overland AI, UW CSE); UW Robot Learning Lab
Presented @ Undergraduate Research Symposium
- Designed and built PyTorch-based road-following models using simulated data (70% of data used) and limited real-world data (30%) to improve robustness.

Augmented Reality for Physical Therapy [UW CSE, Foster, Medicine, BioEngr.] — **Sept. 2023 – Feb. 2024**
Presented @ Final Round of Holloman Health Innovation Challenge 2024
- Built prototype, designed business plan of immersive AR at-home PT technology.

Repairing Brain-Computer Interfaces (BCI) with Fault-Based Data Acquisition [UW CSE] — **April 2021 – May 2022**
Dr. Rajesh Rao & Dr. Rene Just (PhD, UW CSE)
2021 Engineering in Medicine and Biology & 2022 International Conference on Software Engineering
- Evaluated novel BCI debugger that relied on focused data acquisition and data labeling using a cursor manipulation neural decoder application.

ML-Based Neural Decoding — **Dec. 2019 – March 2021**
Courtnie Paschall (UW MD/PhD student)
1st @ WSSEF 2020, 2021; 2nd in Software Systems @ 2021 CRSEF, US Air Force Award, 2020 Student Scholar Symposium (Sigma Xi)
- Developed ML-based haptic neural decoders, for object-handling prosthetics.
- Built ML-based system to predict distracted driving from EEG data.

MyScoliCare (Android/iOS app) — **Nov. 2018 – May 2019**
Endorsed by Dr. Manuel Rigo (MD/PhD, Barcelona Scoliosis PT School)
Non-Operative Treatment of Childhood Scoliosis, Columbia University
- Developed app with a voice assistant for scoliosis patients; has 100+ users.

Publications/Conferences

Medical question-generation for pre-consultation with LLM in-context learning. *2024 GenAI4Health Workshop (NeurIPS).*

Multimodal Clinical Prediction with Unified Prompts and Pretrained LLMs. *2024 International Conference on Health Informatics.*

Repairing Brain-Computer Interfaces with Fault-based Data Acquisition. *2022 IEEE/ACM 44th International Conference on Software Engineering*

Outreach/Volunteer

CS Education Week, **UW** [Speaker] – Presented my research to high school students.	**Dec. 2023**
NeuroTEC, UW [Digital Media Leader] – Managed digital media on neurotech topics.	**Oct. 2021 – June 2023**
CobraCoders.org [Co-founder] – Ran outreach platform to inspire students in tech.	**July 2019 – September 2023**
Amazon Women in Engineering [Speaker] – Presented 3 tech talks to high-school students.	**July 2019, Aug. 2020, Aug. 2021**

Skills

Programming Languages: Python, Java, HTML/CSS, Julia, System Verilog, JavaScript, TypeScript, React
Software Libraries/Tools: AWS (S3, EC2, DynamoDB, Scikit-Learn, NumPy, Pandas, PyTorch, Intel Quartus Prime