

SUHAS DARA

daras@purdue.edu · <https://suhasdara.me> · <https://linkedin.com/in/suhas-dara>

SUMMARY: Graduate Researcher and former Software Engineer focused on bridging the gap between spiking neural data and real-time software applications. Applying deep learning and signal processing techniques to advance Brain-Computer Interface (BCI) research.

EDUCATION

Purdue University, MS in ECE (AI and Signal Processing) 2025 - 2027

- **Research:** Computational Neuroscience with thesis adviser **Dr. Joseph Makin**
- **Relevant Coursework:** Deep Learning, Digital Signal Processing, Statistical Learning and Inference, Neural Systems

The University of Texas at Austin, BS in Computer Science, High Honors, 3.98/4.0 GPA 2017 - 2021

- **Research:** Computer Vision for Robots at **Peter Stone Laboratory**
- **Relevant Coursework:** Data Mining, Neural Networks, Natural Language Processing, Autonomous Robots

RESEARCH

Textual-speech Decoding from Utah Arrays, Graduate Researcher 09/2025 - Present

- Utilizing deep learning, linguistic, and ensembling techniques to decode textual-speech from Utah Array neural signals.
- Proposed leveraging neuroscience-backed articulatory and motor features to assist decoding.
- Achieved a 4.5% WER (Word Error Rate) with a 125,000-word vocabulary.

Corner Detection Algorithm, Undergraduate Researcher 08/2018 - 05/2019

- Harnessed **PyTorch, YOLO, and OpenCV** to blend deep learning and analytical approaches to develop a door sign corner detection algorithm for robot localization.
- Achieved corner-detection accuracy to within 5 pixels under specific conditions.

EXPERIENCE

Purdue University, Graduate Teaching Assistant 08/2025 - Present

- Creating and grading homework assignments and exams for the **Python for Data Science** course.
- Streamlining course administration with automation and **reducing Teaching Assistant workload** by over 50%.

Two Sigma, Data Engineer 02/2022 - 05/2025

- Modernized important data pipelines with a newer tech stack, including **BigQuery, DBT, and observability tools**.
- Improved run-time of critical data pipelines, and reduced downtime by **over 300%** to meet SLAs consistently.
- Utilized **Java, Python, and SQL** to deliver **wide foundational datasets** to modeling and trading for business needs.

Two Sigma, Software Engineering Intern 06/2021 - 08/2021

- Measured robustness and precision of **financial simulations** using novel sampling strategies based on **Monte Carlo simulations**.
- Automated daily generation of HTML summary reports to **reduce engineer-hours** otherwise required for investigations.

Microsoft, Software Engineering Intern 05/2020 - 08/2020

- Improved the experience for **Azure Stack Hub** customers in internet-challenged areas by refining product downloads.
- Implemented intermediate downloading from **Azure** to local storage accounts by leveraging job systems in **C# and .NET**.

Qualys Security TechServices, Software Engineering Intern 06/2018 - 08/2018

- Developed **MERN, WebSocket, and UDP**-based applications to load test a cloud-based Passive Scanner micro-service and a Network Access Control appliance.
- Reduced the engineer-hours required to run large **network traffic simulations** for testing network security devices.

MERITS

Certificate: Signal Processing Problems, solved in MATLAB and in Python 01/2026

Award: True Grit, Two Sigma 05/2023
Saved millions of dollars in EUM through proactive action to improve data pipelines that regularly breached SLAs.

SKILLS

Domain Deep Learning, Digital Signal Processing, Machine Learning, Automation
Programming Languages Python, Java, SQL, JavaScript, MATLAB, C, C++
Technologies Claude Code, PyTorch, Linux, Bash, GCP, HTML, CSS