VISHNU IYENGAR

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EDUCATION

University of Washington **September 2022 – Dec 2025**
Bachelor's, Computer Science *GPA: 3.94*

- **Relevant Courses:**

CSE 344 (Intro to Data Management) CSE 351 (The HW/SW Interface)
CSE 333 (Systems Programming) CSE 331 (Software Design and Implementation)
CSE 341 (Programming Languages) CSE 311, 312 (Foundations of Computing I, II)
CSE 446 (Machine Learning) CSE 421 (Introduction to Algorithms)
CSE 451 (Operating Systems) CSE 444 (Database Systems Internals)
MATH 318 (Advanced Linear Algebra Tools & Applications), 207 (Diff Eqs), 208 (Intro to Linear Algebra)

PROFESSIONAL EXPERIENCE

Amazon **Palo Alto, CA, USA**
Software Engineering Intern *June 2024 – August 2024*

- Worked on Amazon Search ML Data Platform team for 12 weeks, creating a bridge that allowed near real-time, keyword aggregated data to be used for offline consumption
- Deployed infrastructural-level code to schedule an hourly job that produced aggregates and trending scores for keywords searched in the past hour
- Wrote unit & integration tests to evaluate performance in pre-prod environments and monitor reliability in production
- Drafted & held design review meetings, delivered final demo to stakeholders
- Interfaced with AWS technologies (Lambda, S3, Kinesis Firehose, CloudFormation, QuickSight, Simple Notification Service) and orchestrating and processing frameworks (Apache Airflow, Spark)

UW Reality Lab **Seattle, WA, USA**
Undergraduate Researcher *March 2023 - Present*

- Creating a virtual reality application in Unity that provides various audio stimuli associated with a virtual space and quantifies sound localization (timing, RMS error, head movements). Aiming to create a more accessible and gamified way of assessing sound localization in patients with single-sided hearing loss.
- Writing Python and C# scripts that track and analyze controller and head rotational and positional data.
- Utilized OpenAI's Whisper API to process voice input from a user and convert it into text. Leveraged OpenAI's GPT-4 endpoint to determine whether the text generated by Whisper indicated that the user had comprehended a prompt.
- Developed a wrapper class in C# that made web requests on the backend to integrate OpenAI's API in VR.

Washington State University **Remote**
Data Science Intern *June 2021 - October 2021*

- Computationally modeled the effects of extreme windspeeds due to hurricanes on a 2000-bus electrical power grid of the state of Texas
- Responsible for generating a mathematical model of a hurricane using kernel density estimation and synthesizing different hurricane scenarios to determine the most affected grid lines
- Represented our findings in an IEEE publication and at the 2022 IEEE PES General Meeting, and we were nominated for the best paper.

PROJECTS & OUTSIDE EXPERIENCE

Text Classification Browser Extension
Co-Creator *April 2021 - June 2021*

- Developed a chrome extension that uses TF-IDF text classification to categorize past browsing history and provide them with insights that could make their browsing patterns more balanced. Learned several other machine-learning techniques, including regression and K-means clustering.

Website for the Latin Language
Co-Creator *September 2020 - September 2021*

- Developed a website to help students practice and learn the syntax, morphology, and semantics of the Latin language. Extracted Latin words from Wiktionary using BeautifulSoup and schematized them into MongoDB for the backend. Built the front end using Flask, Jinja Templates, and Bootstrap. The site was incorporated as a resource into our curriculum and amassed ~1000 users.

SKILLS & INTERESTS

Skills: AWS, C#, Data Science, JavaScript, Git, HTML/CSS, Java, C/C++, Microsoft Azure, Pandas, Pytorch, React.js, Python, TypeScript, Unity, REST APIs, SQL, MongoDB