SANJANA PINGALI

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EDUCATION

University of Illinois at Urbana-Champaign August 2023 - May 2025
Master of Science in Electrical and Computer Engineering

University of Illinois at Urbana-Champaign August 2019 - May 2023
Bachelor of Science in Computer Engineering GPA: 3.76/4.0

Relevant Coursework: Distributed Systems, Artificial Intelligence, Data Structures, Intro to Algorithms and Models of Computation, Database Systems, Natural Language Processing, Data Science, Web Programming, Digital System Laboratory, Computer Systems Engineering

SKILLS

Programming Languages: Proficient: Python, C++, MySQL, Javascript | **Familiar:** HTML, CSS, C, MongoDB, Neo4J, ReactJS, Ruby, SystemVerilog, x86**| Applications:** SolidWorks, Paraview, GCP, Amazon Web Services (AWS)
Tools and Frameworks: Git, Pandas, React, TensorFlow, SciPy, Scikit-learn, Numpy, KiCAD
Honors/Achievements Illinois Engineering Achievement Scholarship (Fall 2021, Spring 2022)**,** James Scholar

WORK EXPERIENCE

University of Illinois at Urbana-Champaign August 2022- May 2023
Undergraduate Course Assistant for ECE 385 (Digital Systems Laboratory)

- Held weekly Office Hours to assist students in understanding FPGA and digital logic concepts as well as adept System Verilog debugging.

National Center for Supercomputing Applications May 2022 – May 2023
Research Assistant

- Implemented Python code and scripts for the automation of data collection.
- Processed and analyzed data from JSON and XML files stored on computing platforms such as cPanel and AWS.
- Collaborated with fellow researchers to further comprehend the necessary information to be extracted.

Civis Analytics June 2022 – August 2022
Software Engineering Intern

- Created a new application feature to allow project cloning.
- Developed with a Ruby backend, ReactJS frontend, and instantiated an API endpoint.
- Worked with all stages of the Software Development life cycle.
- Able to efficiently collaborate with cross-functional teams in an Agile environment.

Forward Data Lab January 2022 – May 2022
System Developer

- Demonstrated adeptness in brainstorming and creating a module to explore methods of ranking information
- Implemented four statistical rankings by querying relevant data using MySQL and predicted future rankings.

EXTRACURRICULAR ACTIVITIES & LEADERSHIP

Society of Women Engineers September 2020 – October 2021
Team Technical: Machine Learning Project Lead

- Led the machine learning team under a project sponsored by Caterpillar, and was able to actively manage weekly meetings, and coordinate tasks.
- Provided a solution to mitigate the challenges of needing extra hardware resources in job execution by implementing a Machine Learning Regression Model, resulting in an estimated 28% reduction in idle wall time.
- Applied principles of optimization mathematics to create three distinct models, including nonlinear optimization.

PROJECTS

High-Frequency Trading Group Project

- Engineered a web application, collecting 64000+ High-Frequency Trading job opportunities via Data Mining, and stored them in MySQL-queried Relational Databases.
- Employed a Python backend in conjunction with a ReactJS frontend to power the project's technological framework.

Web Programming Final Group Project

- Developed a multi-tiered web app for startup investments using JavaScript, ReactJS, Python, and MongoDB.
- Created an API endpoint and incorporated user authentication for added security.

Senior Design Group Final Project

- Collaborated on the innovation of a health-tracking technology, enabling secure storage of three health indicators, location data, and real-time alerts.
- Engineered ESP32 firmware linking GPS, accelerometer, and oximeter, applying Electrical Engineering and Computer Science principles for the web interface.