# Pramod Anandarao

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#### **EDUCATION**

#### University of Wisconsin-Madison

- Computer Science B.S., Mathematics B.S., Political Science B.S.
- Relevant Coursework: Algorithms, Artificial Intelligence, Operating Systems, Big Data Systems, Computer Vision, Virtual Reality, UI/UX Development, Combinatorics, Modern Algebra I-II, Real Analysis I-II, Topology.

## **RESEARCH AND PROJECTS**

#### **Informatics Skunkworks Lab**

#### Undergraduate Research Assistant

- Project title: "Optimizing Rate of Return from Donation Campaigns using Machine Learning Modeling and Feature Analysis."
- Collaborate with River Food Pantry to provide insights into factors that may impact donation campaigns with the goal of providing key takeaways for optimizing future campaigns.
- Develop tree-based models using scikit-Learn and use PyTorch to create neural networks based on TabNet to predict recurring donors. Rochester, MN | June 2024 - Present

#### AI Approach to Legislative Bill Outcome Prediction

- Independent Researcher
- Developed a neural network using TensorFlow to predict whether a bill introduced in the House of Representatives will pass.
- Used the congress.gov API to retrieve text, summaries, and actions on roughly 10,000 bills introduced in the House during the 117th Congress to build the dataset.

#### Directed Reading Program in Harmonic Analysis of Boolean Functions Madison, WI | September 2024 - December 2024 Undergraduate Research Assistant

- Paired with mathematics Ph.D. student to perform research in the areas of analysis of boolean functions and computational learning theory.
- Tasked with delivering 12 minute oral presentation to audience of university math department faculty and graduate students.

#### Madison Experimental Mathematics Lab Madison, WI | January 2024 - May 2024 Undergraduate Research Assistant

- Project title: "Explaining Congruences in Character Tables."
- Worked ten hours per week, collaborating with peers to develop programs in addition to preparing and giving presentations.
- Wrote Python and Rust programs to generate groups of signed permutation matrices as large as 9-by-9 and to search for congruences modulo prime powers in the character tables of these groups.

### **Exploring Racial Inequality in Online Social Network Structure**

Undergraduate Research Assistant

- Collaborated closely with mentor to analyze large volumes of Chicago Twitter data, utilizing R for data processing and sentiment analysis to identify key trends and patterns in data.
- Executed large-scale computational jobs on university's computing cluster using Slurm Workload Manager.

## LEADERSHIP AND VOLUNTEERING

### Intercollegiate Programming Contest (ICPC)

Competitor

- Attend and participate in weekly club meetings to prepare for worldwide algorithmic programming contest using C++.
- Organized 3 member team to compete on behalf of the University of Wisconsin-Madison at 2023 regional competition among 116 teams.

### K-12 Computer Science Club

Instructor

- Taught 2 weekly after-school computer science clubs in Scratch programming language to elementary school students in Madison area.
- Spoke with fellow club leaders to create lesson plans, encourage student engagement, and foster student interest in computer science and math.

#### HONORS AND AWARDS 2022 Claude and Dora Richardson Engineering Freshman Scholarship Fund National Merit Scholarship Semifinalist 2022

## SKILLS

Technical Skills: C, C++, Python, Rust, CUDA, machine learning (experience with TensorFlow, PyTorch, and Burn), Java, JavaScript, R, Hadoop Distributed File System, Apache Spark, Apache Cassandra, SQL, MySQL, gRPC, React, React Native, Node.js. Languages: English (native), Telugu (proficient), Latin (basic).

#### Madison, WI | September 2024 - Present

He/Him

# Madison, WI | September 2022 - Present

Madison, WI | August 2023 - December 2023

# Madison, WI | January 2024 - May 2024

Madison, WI | 2022 - 2026