

# Pranav Dronavalli

913-260-1499 | [dronavalli@wisc.edu](mailto:dronavalli@wisc.edu) | [linkedin.com/in/pranavdronavalli](https://www.linkedin.com/in/pranavdronavalli) | [github.com/dronavallipranav](https://github.com/dronavallipranav) | [dronavalli.dev](https://dronavalli.dev)

## EDUCATION

### University of Wisconsin - Madison

Bachelor of Science in Computer Science, Mathematics 3.95/4.0 GPA

Madison, WI

Sep. 2021 – May 2025

### Blue Valley High School

4.4 GPA, 35 ACT

Stilwell, KS

Aug. 2017 – May 2021

## EXPERIENCE

### Software Engineer Intern

Entegral (subsidiary of Enterprise)

May. 2023 – Present

Madison, WI

- Created ETL pipelines using airflow to move data from MySQL, transforming it in BigQuery, and adding data to LookML model
- Developed API's in NestJS to integrate Google Looker Studio dashboards into the Angular app
- Improved ML model precision by 6%, by creating a shallow neural network model with keras and adding it to the model aggregation
- Migrated ML infrastructure to the cloud, and created scheduled SQL queries to retrieve data from MySQL

## PROJECTS

### GameBoy Emulator | C, CMake

June. 2023 - Present

- Implemented the entire GameBoy CPU instruction set in a reusable and modular way
- Created a Memory Management Unit that models the CPU's address space and handles all memory read/writes, program flags, and permissions
- Built a comprehensive CUnit testing suite and used CMake to automate the build process
- Developed a virtual GameBoy GPU (PPU) to render backgrounds, windows, and sprites and handle screen refreshes

### Ad Impression Predictor | Python, sklearn

Oct. 2022

- Created a binary logistic regression model to determine if a user is likely to click on an ad with 92 percent cross-val accuracy
- Transformed feature columns after analyzing user data with sklearn transformers
- Utilized sklearn libraries for efficient fitting, scoring and preprocessing

### People Counter | Python, OpenCV

Mar. 2023

- Increased UPL participation by creating a People Counter which lets people know when the lab is open
- Utilized the YOLOv7 model on a Raspberry Pi to count people in the lab with discord server integration

### Double Encrypter | Node.js, GCP

Dec. 2022

- Self-implemented a RSA algorithm and used Google's cloud translate API as a second layer of obfuscation for a Hackathon project

## VOLUNTEER EXPERIENCE

### Undergraduate Project Lab Coordinator

University of Wisconsin-Madison

Mar. 2023 – Present

Madison, WI

- In charge of supervising the lab, allowing students to use our hardware, and helping members with classwork
- Maintaining our server infrastructure including a kubernetes cluster and expanding our infrastructure capabilities
- Organizing computer science related events for students including: tech talks, workshops, and most notably hackathons with over 300 participants

### Youth Scratch Club Leader

Glenn Stephens Elementary

Sep. 2022 – June. 2023

Madison, WI

- Led an after-school Scratch club at an elementary school which introduced kids to computer science
- Designed a weekly curriculum to teach kids the fundamentals of programming

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C++, JavaScript, TypeScript, SQL, OCaml, HTML/CSS, R

**Frameworks:** React, Angular, Node.js, NestJS, Flask

**Developer Tools:** Git, GCP, VS Code, PyCharm, IntelliJ, Eclipse

**Libraries:** pandas, tidyverse, NumPy, Matplotlib, TensorFlow