Pratheek Thummalapalli

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OBJECTIVE	Seeking Summer Internship Opportunities (**Software Engineering**)
EDUCATION	**BACHELOR OF ENGINEERING, COMPUTER SCIENCE**, May 2026 Virginia Polytechnic Institute and State University (**Virginia Tech**), Blacksburg, VA
COURSE WORK	Data Structures, Problem Solving in Computer Science, Computer Organization (High School : Java, Python, Foundations of Eng., Calculus 2, Linear Algebra)
CERTIFICATIONS	**AWS Certified Cloud Practitioner (Link)**
SKILLS	Java, JavaScript, Python, C, C++, SQL, HTML, CSS, MD, Git, Flask, Git, Linux, Pandas, TensorFlow, Figma, Junit, Eclipse, UML, draw.io, MATLAB, SOLIDWORKS, Arduino, Machine Learning, Shell scripts, Jenkins, AWS, and MS Office (PPT, Word, Excel)

Projects

VT Hackathon – Fall 2024

Challenge:

- Develop a system to analyze historical weather patterns and real-time data.
- Predict potential weather events using factors like humidity and temperature fluctuations.
- Provide users with an intuitive UI to monitor weather conditions in select areas.

Solution:

- Created a Weather Watch Web App using the Open-Mateo API.
- Tracks weather in select areas and analyzes the past two weeks of weather data.
- Utilized Python Libraries such as Pandas, NumPy, and TensorFlow
- Features a flexible and user-friendly UI.

Follow-up Research:

- Designing a solution to collect future forecast data from multiple sources.
- Maintains predictability scores for various popular weather sources based on historical accuracy
- Utilized Python Libraries such as Pandas, NumPy, and TensorFlow. Project Source.

Data Structures – <Hanoi Solver> Fall 2024

- **Design**: Built with the MVC pattern; front-end as an Observer for low coupling. Used UML.
- **Implementation**: Used recursion, stack operations, and validation for disk placement.
- **Development**: Implemented J-Unit tests for assurance and engineered for performance.

Data Structures – <Puzzle Window> Fall 2024

- Created a Java game using VT libraries with custom SimpleArrayBag and SimpleLinkedBag.
- Designed algorithms for shape management and event-driven game logic.
- Validated functionality with unit tests, including Testable Random.

VT GOBBLE ROCKETS – Spring 2024 (Innovation Lab Project)

- Co-designed a high-powered electric rocket prototype powered by a PCB.
- Assembled the rocket using motors, a Nomex parachute protector, and a tubular shock cord.