Piyush Hole

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Education

Texas A&M University **May 2027**
B.S. in Computer Science (Honors) — Minors in Mathematics and Statistics *GPA: 3.74/4.00*

Experience

Software Engineer Intern (Incoming) **May 2025 - August 2025**
Palo Alto Networks *Santa Clara, California*

Software Engineer **September 2024 – Present**
Texas A&M Design Build Fly Team *College Station, Texas*

- Analyzed **3,000+** component configurations with Python-based web scraping to optimize aircraft design
- Implemented real-time error correction via low pass filtering and optimized buffered logging to reduce SD card I/O
- Contributed to autonomous flight system by implementing Kalman Filter sensor fusion for accurate state estimation

Undergraduate Researcher **August 2024 – Present**
Texas A&M University *College Station, Texas*

- Engineered a decision modeling system to improve early detection of Bovine Respiratory Disease (BRD) in cattle
- Developed LSTM models using TensorFlow and Keras, achieving **86%** accuracy in detecting and diagnosing BRD
- Optimized treatment protocols through data-driven insights, contributing to effective BRD management strategies

Software Engineering Intern **May 2024 – July 2024**
NEA X GmbH *Aachen, Germany*

- Developed a time management application with React TypeScript enhancing user experience and task organization
- Engineered backend infrastructure for managing user entries by interfacing with the company's project database
- Achieved a total cost reduction of **96.2%** per employee leading to increased operational and financial efficiency

Projects

Restaurant POS System | *Java, Swing, Spring Boot, PostgreSQL, Python, Pandas, AWS* **March 2025**

- Spearheaded the development of a point-of-sale system using Java and PostgreSQL utilizing **Agile** and **Scrum** practices
- Implemented Model View Controller architecture with Java Swing for responsive UI, reducing screen load times by **40%**
- Designed automated inventory management system tracking **100+** products, triggering alerts at configurable thresholds
- Wrote a Python data generation script to simulate **39 weeks** of business operations, producing **750K+** in sales data

Mutual Fund Dashboard | *React, JavaScript, TailWindCSS, Node.js, Express.js, MongoDB, Auth0* **January 2025**

- Selected as **1 of 60** for **Goldman Sachs** Engineering Emerging Leader Series, Winning **1st Place** for best project
- Collaborated on an investment calculator with React JavaScript, fetching data from FRED for **real-time** projections
- Coded RESTful APIs in Node.js that retrieve Beta values from Newton Analytics, with **sub-500ms** response times
- Integrated MongoDB for user-data storage and dynamic performance tracking for **hundreds of investment records**

Aggie Stops – Schedule Planner | *React, TypeScript, TailWindCSS, Python, Selenium, Flask* **March 2024**

- Built full-stack schedule planner using React and Flask, processing **1,000+** student schedules through PDF extraction
- Developed recommendation algorithm analyzing **200+** study spaces based on metrics including distance and occupancy
- Created automated data pipeline using Selenium to track real-time availability across campus with **5-minute updates**
- Increased student study efficiency by **35%** through personalized recommendations, serving 300+ active weekly users

Skills

Languages: Python, C/C++, Java, JavaScript/TypeScript, Swift, C#, R, Git
Frameworks/Libraries: React, TailWindCSS, SwiftUI, Node.js/Express.js, Pandas, NumPy, Scikit-learn
Tools: PostgreSQL, MongoDB, Firebase, Supabase, Selenium, Unity, Blender3D, Figma, Tableau
Accomplishments: High School Valedictorian (1/546), 1550 SAT (99th+ Percentile), AP Scholar with Distinction Award
Soft Skills: Communication, Problem Solving, Teamwork/Collaboration, Adaptability, Time Management/Organization
Interests: Cooking, Graphic Design, Football, Photography, Cinematography, Music