

CHANDRASEKAR ADHITHYA HARSHA PASUMARTHI

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EDUCATION:

Frisco High School

Frisco, TX

High School Diploma

(Expected) June 2027

- **GPA:** 3.9 / 4.0 (unweighted); **Honors:** AP Scholar with Distinction; National Recognition Program Awardee
- **AP Coursework:** Computer Science A; Computer Science Principles; Calculus AB/BC; Statistics; Physics C Mechanics & E&M; Seminar; Psychology; US & World History; Economics; English Literature & Language

RESEARCH & PROFESSIONAL EXPERIENCE:

Journal of Computer Science and Technology Studies (JCSTS)

Frisco, TX

Published Researcher

June 2025 - April 2026

- Authored and published two peer-reviewed AI research papers examining computer vision model performance and AI-based student stress classification:
 - "Comparing Vision Transformers and Convolutional Neural Networks: A Systematic Analysis." (1/28/2026)
 - "Stress-Level Classification for Students with Recommendation Outputs." (4/15/2026)
- Conducted a systematic comparative analysis of Vision Transformers (ViTs) and Convolutional Neural Networks (CNNs) across image datasets, evaluating accuracy, efficiency, and performance under varying image conditions.
- Developed an AI-based student stress classification framework using workload and behavioral factors to classify stress levels and generate personalized recommendations for workload management.

Association for Computing Machinery (ACM) – ChemoCraft Project

Frisco, TX

Research Contributor

July 2025 - Present

- Processed and cleaned medical imaging datasets for oncology research, addressing image noise, inconsistencies, and missing data.
- Converted Diffusion-Weighted Imaging (DWI) scans to Diffusion Tensor Imaging (DTI) formats to support downstream computational analysis.
- Improved image preprocessing and dataset quality, enabling more reliable analysis for the broader research team.

UT Austin High School Research Academy – Computational Materials Science

Austin, TX

Student Researcher

June 2026 - July 2026

- Conducted university-level computational materials research focused on fuel-cell and battery materials and atomic-scale interactions.
- Used Python and VASP simulations to model atomic interactions, bonding, and material behavior using concepts from physics, mathematics, and materials science.
- Researched approaches to materials optimization and contributed improvements to a haptic atomic-interaction visualization system, using Git/GitHub for development.

UT Austin Academy for Data Science Research

Austin, TX

Student Researcher

July 2026 - August 2026

- Conducted data science research under UT Austin mentorship, applying computational methods to analyze datasets and investigate research questions.
- Applied quantitative techniques to identify patterns and communicate findings through research presentations.

UT Dallas Quantum Computing Research Internship

Remote

Student Scholar

June 2026 - August 2026

- Studied qubits, quantum gates, quantum algorithms, quantum physics, and quantum hardware limitations through specialized university-level training.
- Implemented quantum algorithms using Python/Google Colab and explored how environmental interference and particle isolation affect quantum computation.

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Asklena AI

Frisco, TX

Software Engineering & AI Intern

April 2026 - Present

- Contributed to an AI assessment platform used by businesses to evaluate organizational performance and identify areas for growth across departments.
- Supported development and optimization of data-driven AI systems in a startup environment, translating machine-learning concepts into practical software applications.
- Developed AI and software solutions involving machine-learning models, data pipelines, and AI-driven assessment systems for business applications.

ACADEMIC & LEADERSHIP EXPERIENCE:

Frisco High School Artificial Intelligence Club

Frisco, TX

Founder & President

August 2024 - Present

- Founded Frisco High School's **first dedicated AI club**, establishing a student community focused on machine learning, generative AI, and emerging technologies.
- Lead weekly workshops introducing students to AI/ML concepts, applications, and hands-on projects.
- Develop presentations and collaborative projects encouraging students to explore AI beyond the classroom.

Frisco High School Computer Science Club

Frisco, TX

Programming Officer & CS Education Lead

August 2023 - Present

- Teach programming concepts and create presentations covering software development, algorithms, and competitive programming.
- Mentor peers through programming challenges and projects, supporting students across varying levels of technical experience; help organize programming activities and competitive preparation.

Frisco High School Volunteer Club

Frisco, TX

Founder & President

December 2024 - Present

- Founded a student-led service club connecting peers with volunteer opportunities and expanding student involvement across the Frisco community.
- Built on prior volunteering: City of Frisco Volunteer (1 year); American Red Cross Volunteer Member (3 years).

ATHLETICS & MUSIC:

City of Plano Swimmers

Frisco, TX

Competitive Swimmer

January 2023 - Present

- Compete year-round while leading practices and mentoring younger swimmers.

Royal Conservatory of Music (RCM)

Frisco, TX

Flutist

March 2014 - November 2024

- Completed RCM Flute Levels 1-6 and performed as a member of the school band.

AWARDS, SKILLS & CERTIFICATIONS:

Awards: Peer-Reviewed AI Research Publications (x2); UT Dallas Battle of the Brains Hackathon (1st Place - 2026 & 5th Place - 2024); Lumiere Scholars Essay Award; AP Scholar with Distinction; UIL Computer Science Regional Qualifier; AMC 12; Kaggle Hackathons; LeetCode Contests

Technical Skills: Embedded Systems, TinyML, Edge AI, Hardware-Software Co-design, System Architecture, ML Deployment, Model Quantization, Performance Benchmarking, Responsible AI; ESP32-S3, Arduino IDE, TensorFlow Lite for Microcontrollers, Edge Impulse, Python, C++, PyTorch, TensorFlow, Keras, Scikit-learn, VASP; Git/GitHub, VS Code, Flask, TypeScript, REST APIs, GCP, OpenAI API, Claude API; CNNs, LSTMs, Transformers, Classification, Regression, NumPy, Pandas

Certifications: Stanford University – Machine Learning Specialization; MIT – Autonomous Cognitive Assistant & Quantum Software; PCEP / PCAP – Python Programming; ITS Java Certification – Certiport

Website Links: GitHub: github.com/Adhithpasu | LeetCode: leetcode.com/u/adhithpasu12