# Thanika Puhazholi

### thanika@outlook.com | Bellevue, WA

# Summary

Curious high school student passionate about solving interdisciplinary problems through AI and engineering. Selected as an AI Researcher (top 2%) for the Cambridge Center for International Research and co-led a nationally ranked rocketry team to the American Rocketry Challenge finals. Brings technical fluency in software development and a track record of applying AI to real-world challenges across research, product development, and team leadership—with a focus on innovation and collaborative impact.

### **Education**

## Newport High School, Bellevue, WA - High School Diploma (Expected: June 2026)

- **GPA**: 3.93/4.0 (unweighted)
- **SAT**: 1540/1600
- AP courses (STEM focus)
  - Completed: AP Computer Science A (5/5), AP Computer Science Principles (5/5), AP Calculus AB (5/5), AP Physics (4/5)
  - o In progress: AP Calculus BC, AP Statistics, AP Physics Electricity & Magnetism
- Additional Coursework: Java Coding, Python Coding 1 & 2, CS Special Topics, Digital Media Production

### **Technical Skills**

- Languages: Python, Java
- Libraries/Frameworks: TensorFlow, Keras, Pandas, NumPy, Scikit-learn
- Technologies: ML (Regression, Classification, Neural Networks), NLP, GPT Model Optimization, Data Visualization, Git, Zapier Automation

# **Professional & Research Experience**

### Al Researcher | Cambridge Center for International Research

Jul - Oct 2025

- Selected from 500+ applicants for an elite research program mentored by Harvard Professor Dr. Hannah Rana
- Built a predictive model using Kennedy Space Center launch datasets to forecast launch viability based on windshear, lightning, and rainfall data
- · Conducted advanced data analysis and model validation; research publication is pending

## Al Developer Intern, ML Division | Elite Performance Partners

Summer 2025

- Engineered ML tools and optimized GPT models to reduce hallucinations and improve source-based accuracy
- Automated client engagement and communication workflows using Zapier, eliminating manual data entry and boosting operational efficiency

### Al Product Manager Intern | Venu.Al

Sep - Nov 2024

- Led B2B outreach using AI-driven targeting and built an NLP-powered email system
- Created strategic content and collaborated with cross-functional teams to enhance client engagement

## **Leadership & Extracurricular Activities**

# Vice President & Lead Mechanical Engineer | Rocketry Club, Newport High School Sep 2023 - Present

- Led team to a top-20 national finish (out of 1,000+ teams) at the 2024 American Rocketry Challenge
- Applied AI to assess weather conditions and flight stability, optimizing rocket altitude and recovery
- Mentored 90+ members and oversaw team planning, budgeting, and resource allocation

## Co-Founder & Vice President | Artificial Intelligence Club, Newport High School Sep 2023 - Present

- Co-founded club to explore real-world AI applications and ethics; grew membership to over 30 students
- Led outreach initiatives, organized speaker events, and built interactive AI demos for 50+ middle schoolers
- Led a joint workshop with DECA exploring AI applications in business strategy

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### Al Programmer, Al Scholars Program | Inspirit Al

Fall 2023

- Developed a hybrid machine learning model for pneumonia detection by integrating classification and regression algorithms with neural networks to analyze X-ray images
- Awarded a certificate of excellence for contributions and technical skills

### Developer, Coding and Robotics Camp | Bellevue College

Summer 2018

 Designed, constructed, and programmed robots using specialized kits to navigate obstacles and perform autonomous tasks

### **Active Contributor & Member | National Honor Society**

Fall 2024 - Present

- Earned membership for academic excellence and leadership; completed over 70 hours of community service
- Organized donation drives and coordinated the annual Ski Swap, gaining experience in sales and team operations

## **Arts & Instruction (Selected Highlights)**

#### Classical Ballet Performer & Instructor | Emerald Ballet Theatre

Sep 2018 - Present

- Achieved advanced proficiency in classical ballet through 10+ hours of weekly training, earning multiple lead roles in professional productions attended by 700+ people.
- Selected as a part-time Instructor to mentor 30+ young dancers, strengthening communication and leadership skills.

### Bharatanatyam Dancer & Social Media Representative | Kala Alaya School of Dance Sep 2012 - Present

- Mastered advanced Bharatanatyam techniques over a 10+ year period, earning lead roles and preparing for a 2025 Arangetram (solo debut).
- Managed web presence and created engaging social media content to drive community outreach and new admissions.

### Western Vocalist | Cascade Voice Academy

Sep 2016 - Jun 2023

Performed in NATS competition and solo/team performances. Received honorable mentions & awards.

### Pianist | Parnassus School of Piano

Sep 2016 - Jun 2021

• Received awards in several solo/team performances.

## **Awards & Honors**

#### **STEM & Academic**

- The American Rocketry Challenge, National Finalist (Top 20) | 2024
- AP Scholar With Distinction, College Board | 2025
- DECA Area Competition, Honorable Mention (Top 10 Presenter), Hospitality & Tourism | 2024
- Student of the Month: Selected as top 10 among 2,000 students at Newport High School | 2024
- Student of the Month: Selected as top 5 among 1,000 students at Tyee Middle School | 2021

### **Arts & Performance**

- National Association of Teachers of Singing (NATS) Competition, Honorable Mention | 2022
- Piano: Achieved Level 5 mastery at Parnassus School of Piano | 2021