

# HENRY MINH-MAN VO

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## EDUCATION

**California State University, Sacramento**  
*Bachelor of Science in Computer Science | 4.0 GPA*

Sacramento, CA  
Aug. 2023 – May 2025

## EXPERIENCE

### Rice University Research Scholar

May 2024 – Aug. 2024

*PATHS-UP Engineering Research Center, National Science Foundation REU*

*Houston, TX*

- Conducted academic research on pulse oximetry and thermal imaging for digital health
- Generated python algorithms to extract vital biomarkers and fiducial points with a 98% success rate
- Selected to present in 38th Annual Smalley-Curl Institute Summer Research Colloquium
- Presented research findings to graduate and faculty mentors in biweekly lab meetings

### Summer Youth Intern

Jun. 2022 – July 2022

*Elk Grove Unified School District*

*Elk Grove, CA*

- Communicate with managers to set up campus computers
- Assess and troubleshoot computer problems brought by students, faculty and staff
- Maintain upkeep of computers and classroom equipment across campus

## PROJECTS

### Multi-modal Photoplethysmogram and Thermal Monitor | Python, Matplot, Git

May 2024 – Present

- Utilized GitHub for collaboration, version management, documentation, and testing
- Implemented experimental thermal imaging analysis with 99.97% accuracy to ground truth
- Built novel fiducial point detection script utilizing peak enhancement algorithm
- Analyzed Fast Fourier Transform to produce 3 respiration rate estimates and their goodness metrics
- Recorded datasets with simultaneous pulse oximeter and thermal video for machine learning model

### Random Number Game 1 and 2 | C++, C#, .NET, Clickteam Fusion 2.5, Git

Jan. 2023 – Mar. 2023

- Developed dice-based RPG involving statistical distributions and decision making
- Optimized 10-15 minute experience into 76 KB
- Designed UI/UX experience using .NET framework
- Incorporated tester feedback to build and enhance program functions

## ACADEMICS AND EXTRACURRICULAR ACTIVITIES

### Treasurer and Dance Captain

May 2024 – Present

*Vietnamese Student Association*

*Sacramento, CA*

- Oversaw association's budget consisting of several accounts totaling ~\$2,700
- Initiate fundraising strategies, successfully raising ~\$2,200
- Collaborated with executive board members to promote Vietnamese culture

### Principle Flute and Piccolo Player

Aug. 2019 – Present

*Sacramento State Marching Band, Monterey Trail High School Symphonic Ensemble and Marching Band*

*Sacramento, CA*

- Earned 1st in Field Show and Symphonic Band at Lincoln Band Review of Champions 2021-2022
- Performed several solos and duets in competition
- Led woodwind sectionals and mentored 9 underclassmen

## CERTIFICATIONS

**Microsoft Certified:** Azure Fundamentals

**Sacramento State Leadership Initiative:** Green Certificate

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C++, C#, HTML/CSS

**Developer Tools:** Git, LaTeX, VS Code, Visual Studio, Eclipse

**Libraries:** pandas, NumPy, SciPy, Matplotlib, tkinter, cv2