

HENRY MINH-MAN VO

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EDUCATION

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

Aug. 2023 – May 2025
Sacramento, CA

PROJECTS

Multi-modal Photoplethysmogram and Thermal Monitor | Python, Matplotlib, 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 at a 98% success rate
- 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

EXPERIENCE

Rice University Research Scholar

May 2024 – Aug. 2024

PATHS-UP Engineering Research Center, National Science Foundation REU

Houston, TX

- Generated various python algorithms to extract vital biomarkers and fiducial points
- Conducted academic research on pulse oximetry and thermal imaging for digital health
- 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 – Jul. 2022

Elk Grove Unified School District

Elk Grove, CA

- Communicated with managers to set up campus computers
- Assessed computer problems brought by students, faculty and staff
- Maintained upkeep of computers and classroom equipment across campus

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 over 1 semester
- Initiated fundraising strategies and successfully raised ~\$2,200 in a single semester
- Collaborated with executive board members to promote Vietnamese culture for ~150 club members

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, duets, and trios 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