

# Audrey Krishnadasan

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## EDUCATION

|   |                                      |
|---|--------------------------------------|
| <b>University of San Diego</b>   <i>Shiley-Marcos School Engineering</i>                              | San Diego, CA                        |
| BS in Computer Science  | <b>Expected Graduation:</b> May 2025 |
| <b>Awards/Honors:</b> Dean's List (Fall 2023, Spring 2024), Senior Highest Academic Achievement Award | <b>GPA:</b> 4.0                      |

## SKILLS

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|---|
| <b>Programming Languages and Skills:</b> Java, Python, C, C++, JavaScript, SQL, Flutter/Dart, HTML, CSS, Bash Scripting   |
| <b>Tools:</b> JIRA, Confluence, Bitbucket, Linux, Git, Docker, ML/Artificial Intelligence, VSCode, Agile Methodologies, Kanban, Pytest, VIM, Eclipse, Jupyter Notebooks, SpringBoot, Google Co-Lab, Unit Testing, JUnit/Mockito, TDD, Continuous Integration, API Integration |
| <b>Relevant Coursework:</b> User Centered Design and Prototyping, Automata, Networking, Embedded Software Development, Object Oriented Programming, Advanced Computational Problem Solving, Intro to Computer Systems, Data Structures, Real Analysis                         |

## PROFESSIONAL EXPERIENCE

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|--|-------------|
| <b>Medtronic</b>   <i>Software Test Engineer Intern</i>  | Summer 2024 |
| <ul style="list-style-type: none"><li>Developed an automated test report generation tool using Python scripts integrated with the pytest framework, producing two distinct test reports to streamline testing workflows</li><li>Achieved a stretch goal by automating JIRA Issue ticket creation via API integration for failed tests, generating detailed summaries and relevant field data for efficient bug tracking</li><li>Recognized for the modularity and impact of the report by senior management, with a request to scale the solution across the entire SR verification organization as software documentation for FDA approval applications</li><li>Employed Docker containerization and adhered to Git best practices to ensure seamless continuous integration with the broader software development team</li></ul> |             |

## PROJECTS

|  |             |
|--|-------------|
| <b>Weather Station Network Application</b>   <i>Project Lead (C)</i>   | Spring 2024 |
| <ul style="list-style-type: none"><li>Developed the client-side algorithm for a Client-Server network application, utilizing sockets to enable communication between the client and the weather station server</li><li>Utilized TCP socket programming in C to establish reliable connections and communicate with a remote server, mimicking the original application's behavior and message handling</li><li>Ensured code reliability and memory safety by employing Valgrind for memory leak detection and optimizing error handling, resulting in a robust, efficient client application</li></ul>   |             |
| <b>Monopoly Game</b>   <i>Project Partner (Java)</i>   | Spring 2024 |
| <ul style="list-style-type: none"><li>Applied Object-Oriented Programming (OOP) principles to develop a Monopoly game supporting 3-8 players, enabling full gameplay from start to finish</li><li>Designed and implemented back-end architecture using interfaces, inheritance, and other OOP principles to optimize class structure, improve efficiency, and enhance modularity</li><li>Prioritized Test-Driven Development (TDD), creating and running unit tests on key modules before integrating algorithms, ensuring robust and error-free back-end logic</li></ul>  |             |
| <b>AI Heart Disease Prediction Model</b>   <i>Project Lead (Python)</i>  | Summer 2023 |
| <ul style="list-style-type: none"><li>Collaborated with a UPenn Data Scientist to analyze a CDC dataset of over 300,000 entries using machine learning models (K-Nearest Neighbors, Random Forest, XGBoost) on Google Co-lab to predict heart disease</li><li>Conducted extensive studies and identified that the binary physical activity feature decreased prediction accuracy across all models, challenging conventional approaches to measuring physical activity in medical research</li><li>Recommended a more nuanced method for measuring physical activity in heart disease prediction, potentially enhancing the accuracy of future medical data collection and analysis</li><li>Employed performance metrics including sensitivity, specificity, F1 score, and accuracy to assess model effectiveness, achieving significant insights into feature selection and model optimization.</li></ul> |             |

## LEADERSHIP EXPERIENCE

|   |                       |
|---|-----------------------|
| <b>Society of Women Engineering (SWE)</b>   <i>Chapter Vice President</i>               | Fall 2023-Present     |
| <b>Pi Beta Phi (CA Xi Chapter)</b>   <i>Member</i>                                      | Spring 2024 - Present |
| <b>Varsity Softball (Occidental College)</b>   <i>Captain, Tiger ACTION Coordinator</i> | Fall 2021-Spring 2023 |