

# Pambayun Hemas Savira

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## EDUCATION

**University of St. Thomas, St. Paul, MN**

*Bachelor of Science in Computer Science,*

- *Minors: Statistics and Data Analytics*

*Expected: May 2022*

*GPA: 3.95*

## TECHNICAL SKILLS

Java • Python • JavaScript • MySQL • SQL Server • Git • C/C++ • C# • HTML/CSS • R • Bash • Linux • PowerShell • REST API • Node.js • VueJS • Agile • PowerBI • MongoDB

## COMPUTER SCIENCE PROJECTS

- Used Object-Oriented Programming on Java to build to-do items, stored as CSV files based on user's username, that can be sorted based on dates or importance levels, with an emphasis on Error-handling.
- Created a RESTful web server for St. Paul crime data by utilizing SQL queries, Vue JS framework, Leaflet, Nominatim, Node.JS and implemented a number of API routes relating to the data.

## WORK EXPERIENCE

**Argonne National Laboratory, Leadership Computing Facility**

**Lemont, IL**

*Research Aide Technical - Junior*

*June 2021 – present*

- Implemented in situ workflow using distributed computing with MPI in C++ for a computational fluid dynamic then visualized, analyzed, and applied feature detection to the simulation
- Developed interactive widgets to fine-tune the feature detector
- Final implemented simulation resulted in over 30% faster animation, and the interactive widgets make fine-tuning the feature detector easier by over 50%.
- Utilized a conda environment to install necessary modules through a Bash shell
- Debug and test new and existing codes throughout the process
- Co-published Pambayun H. Savira, Thomas Marrinan, Michael E. Papka “Writing, Running, and Analyzing Large-scale Scientific Simulations with Jupyter Notebooks” in 2021 IEEE VIS: Visualization & Visual Analytics

**University of St. Thomas, Computer & Information Science**

**St. Paul, MN**

*CISC 130/131 Tutor*

*Sep 2020 – present*

- Brainstormed solutions to coding problems with students struggling to take the initial approaches
- Guide students through code debugging process in Python, C/C++, and Java

**University of St. Thomas, Computer & Information Science**

**St. Paul, MN**

*STAT 320 Teaching Assistant*

*Oct 2020 – present*

- Grade over 300 RStudio assignments and provide comprehensive feedback on various form of regression models, simultaneous inference, model selection and validation, model violations, and addressing collinearity
- Assist the professor's research project on statistics education, especially with regard to computing, by reading related research papers and coding qualitative data

**University of St. Thomas, Residence Life**

**St. Paul, MN**

*Resident Advisor*

*Aug 2020 – present*

- Build intentional and educative relationships with residents, and help build a community
- Manage paperwork and communicate effectively with the supervisor and the team members

**University of St. Thomas, Diversity Activity Board**

**St. Paul, MN**

*Program Coordinator*

*Aug 2019 – May 2020*

- Organized fun, interactive, and educative events that promote inclusion and social justice for Tommies of all identities, including facilitating conversations on diversity

- Communicated effectively with the supervisor and the team members, including engaging in constructive and respectful feedback with each other

**University of St. Thomas, Office of International Students & Scholars**

**St. Paul, MN**

*International Orientation Leader*

*Aug 2019 – Sep 2019*

- Created an inclusive environment and identified resources for incoming international students to be successful
- Engaged in community building conversations with students to encourage supportive relationships
- Role modeled appropriate academic achievement, community engagement, and mental well-being

**University of St. Thomas, O'Shaughnessy-Frey Library**

**St. Paul, MN**

*Circulation Desk Assistant*

*Sept 2018 – Sept 2020*

- Work effectively with a wide variety of people in a team with emphasis on serving our patrons.
- Assist over fifteen patrons per day via phone and face to face in a helpful way.

**LEADERSHIP DEVELOPMENT & ACADEMIC AWARDS**

***Sarah A. Stevenson International Scholarship, St. Thomas, OISS, St. Paul, MN***

**Oct 2021**

- Recognized for academic and campus achievements

***International Student Leadership Scholarship, St. Thomas, OISS, St. Paul, MN***

**May 2021**

- Recognized for outstanding leadership and contributions to the integration of international students and international awareness at St. Thomas

***Fellow, Stanford University Innovation Fellows, Stanford, CA***

**May 2020 – present**

- Use *DesignThinking* and interdisciplinary collaborations to find innovative solutions to better St. Thomas
- Prototype and test the solutions before implementing it to the wider campus population

***President, St. Thomas Computer Science Club, St. Paul, MN***

**May 2021 – August 2021**

- Plan club programming outreach events to build community of programmer
- Organize meetings by inviting speakers and companies' representative

***Scholar, IEEE VR 2021 Bridge to VR Program, Lisbon, Portugal***

**Mar 2021**

- Use *DesignThinking* and interdisciplinary collaborations to find innovative solutions to better St. Thomas
- Prototype and test the solutions before implementing it to the wider campus population

***Scholar, St. Thomas, Aquinas Honors Program, St. Paul, MN***

**Dec 2018 – present**

- Engage in volunteer activities, scholarships, seminars, and community building with the school's most talented and dedicated students

***Treasurer, St. Thomas, Computer Science Club, St. Paul, MN***

**Apr 2020 – May 2021**

- Manage the club budget and plan club meetings by inviting speakers and companies' representative

***President, St. Thomas, Globally Minded Students Association, St. Paul, MN***

**Sep 2018 – May 2020**

- Represented the club to the larger campus community and chaired the club's meetings
- Served as International Dinner Committee Leader during 2018-2019 academic year

***Secretary, St. Thomas, Neuroscience Club, St. Paul, MN***

**Sep 2018 – May 2020**

- As a Secretary, kept an accurate record of minutes and attendance for Executive Board and general meetings

***Leading Edge Award, St. Thomas, Biology Department, St. Paul, MN***

**December 2019**

- recognized and honored as the most outstanding students in core biology courses