JOSEPH BABY PALLIPADAN

JAVASCRIPT, PYTHON, C++, JAVA

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github.com/JosephPallipadan

EDUCATION

MICHIGAN STATE UNIVERSITY (2ND YEAR)
GPA: 3.97 | Expected Graduation: May 2023

East Lansing, MI

B.Sc. Computer Science

Minors in Data Science and Japanese

Relevant Coursework

- Intro to Programming II **(C++)**
- Computational Modeling Tools & Techniques **(Python)**
- Intro to Computational Modelling & Data Analysis **(Python)**
- Discrete Structures
- Multivariable Calculus

DUBAI MODERN HIGH SCHOOL
GPA: 41/45 (97th Percentile Worldwide)

Dubai

IB Diploma – Math, Physics, Comp. Sci. HL

AWARDS

- MSU International Tuition Grant + Honors Excellence Scholarship Total Value: **$136,000.0**
- **Dean's List** FS-2019, SS-2020
- **Google Tech Challenge -** *Sep 2019* at Michigan State University **Runner Up (~50 Participants)**
- Heriot Watt University (Dubai) National Programming Competition – *Mar 2019* **Runner-Up (~300 Participants)**

LANGUAGES

English - Native Fluency

Malayalam - Native Fluency

Japanese - Limited Working Proficiency

OTHER NOTEWORTHY PROJECTS

github.com/JosephPallipadan/Competition-Hub

github.com/JosephPallipadan/ISOTOXAL

github.com/JosephPallipadan/ASCIIArt-CPlus-Plus

EXPERIENCE

FULL STACK WEB DEVELOPER
The Time Piece Club, *Dubai* / **Aug 2020 - Present**

- **Sole Engineer** in charge of entire website for the **luxury watch subscription service**.
- Vue.js **(Composition API)** + Firebase Single Page App with Integrated Payment Portal and real-time synced rental bookings.
- Continuously communicated with management and implemented requests for changes.
- Built an admin portal for more simplified access to classified data and analytics.
- Using Firebase Cloud Functions to implement automated emails, recurring payments and introduce added security to data access.

PROFESSORIAL ASSISTANT
Michigan State University Human Analysis Lab, *East Lansing*, *MI* / **Sep 2019 - Present**

- Working under Dr. Vishnu Bodetti to develop a simulation to model human behavior and interaction to generate automated data for machine learning models.
- Used Unity3D to create a 3D simulation to model different environments and humanoid models.
- Using PyTorch to implement **Motion-Variational-Auto-Encoders** to generate organic motion clips to model movement.

PROJECTS

JPN-COMPANION *(Jan 2020 - Present)* **-** jpncompanionserver.web.app

Website that serves as a companion to the Elementary Japanese program at MSU.

- Used Vue.js and Google Firebase to create a Responsive Single Page App with real-time synced user-generated word list sharing.
- Used Google Tesseract, Regex, special reverse spread-fill algorithm and several other Python Packages to extract relevant text from **768 pages of scanned images** of the textbooks.
- Used CNN based machine learning to **upscale kanji stroke order GIFS** as requested by Professor. Also used Google Cloud Text-to-Speech along with JavaScript *ReadableStream* API to implement **on-demand text-to-speech** for vocabulary and quiz modules. Hosted as microservices using Firebase Cloud Functions.
- Used Vuex and Vue-Router for robust state management and routing.

NAMSOR-CLIENT *(Aug 2019- Sep 2019)* **-** github.com/JosephPallipadan/Namsor-API-Wrapper-Python

Fully documented and unit tested Python Wrapper for the NamSor API

- Python Package that simplifies accessing the NamSor name to gender/race/ethnicity classification API and adds convenience features including Export to Excel and easy access to NamSor-recognized country strings.
- Made use of Python OOP features such as abstract classes and inheritance to create easily extensible and maintainable codebase.
- Package has been **officially approved** by NamSor.com with over **15,000** downloads.

GANTTLET *(Jun 2020 – Aug 2020)* **-** github.com/HYO-Altair/ganttlet

Gantt Chart based project management web app featuring real time collaboration

- Single Page App featuring robust authentication and invite-based real-time collaboration built using React and Firebase as part of the **Hack-Your-Own** Online Internship program.
- Worked remotely as part of a team of 4 people, extensively using Git and GitHub to facilitate efficient collaboration.
- Implemented the majority of Firebase related functionality, including syncing of Gantt chart tasks data and timestamp-based presence indication. Contributed actively to integrating React Redux with Firebase. Also implemented **end-to-end testing** with **Cypress**.