ACHINTYA PILLAI

Buffalo, NY
7163482003
apillai@buffalo.edu
http://apillai.cf/

EDUCATION

UNIVERSITY AT BUFFALO, THE STATE UNIVERSITY OF NEW YORK
Maters In Engineering, **MS**
Data Science/Machine learning
Currently pursuing.

UNIVERSITY AT BUFFALO, THE STATE UNIVERSITY OF NEW YORK
Bachelor of Science, MAY 2018
Computer Science Engineering
GPA 3.2/4.0

EXPERIENCE

UNIVERSITY AT BUFFALO IT SERVICES, Buffalo, New York
Application Developer Assistant,
07/2017 – Currently Working

- Maintaining and improving the UBIT applications and websites using the Content Management System.
- Developing application and updating legacy application using programming languages.
- Languages used MySQL, HTML, JQuery, JavaScript and CSS.

STATE UNIVERSITY OF NEW YORK AT BUFFALO, Buffalo, New York
Teaching Assistant (Intro to Programming Languages & Digital Systems),
02/2017 – 12/2017 & 02/2018 – 05/2018

- Delivered labs and recitations on topics such as Data Structures, Object Oriented Programming, K- Maps, test benches and used software such as processing, eclipse and Verilog to help student's complete labs and other learning objectives.
- Successfully assisted and taught engineering courses CSE241, CSE113 and CSE101.
- Developed characteristics of a leader and directed students in the right direction.
- Utilized interpersonal skills during interactive encounters with faculty and students.

RENT MI, Buffalo, New York
Android Application Developer Intern, 12/2016 – 01/2017

- Developed the first android version of the company application for user interaction.
- Used concepts and phases of the system development life cycle (SDLC) for planning, creating, testing and deploying the application.
- Completed fragmentation for tabs on the application such as Home, Listing, User Messages, My Profile and Profit.
- Used Android Adapter API in the application to construct the view for the data.

STATE UNIVERSITY OF NEW YORK AT BUFFALO, Buffalo, New York
Research Assistant, 12/2015 – 05/2016
(Project lead by Dr. Bina Ramamurthy)

- Built and implemented a plan which enabled the University to create a fully functional and dynamic virtual environment.
- Analyzed three building structures at the University's North Campus location, collected blueprints for these buildings, and designed a virtual space for the university based on combined data collected from the research team.
- Designed the webpage and worked with the research team to make the website using the BootsStrap framework.
- Used scripts in PHP to send automated emails to participants for the project and advertised the

PROJECTS

Relational & XML database: Design a relational data model and a XML database, which focused on credit scoring services and online book information storage database.

- Had three major types of data to manage: customer data, bank information data and bank account data.
- Use X-Query to query the XML database and SQL to Query and manipulate the relational databases.
- The technical software tools I used for this project was:
    1) PostgreSQL (for SQL)
    2) Edit-iX XML Editor (for XQuery)
    3) Also used SPARQL for querying over RDF data schema.

Machine Learning (Neural Networks/ Python script/ numpy library): Created a neural network to recognize hand written digits.

- Heavy use of Numpy Library in python to accomplish this task.
- Programmed a full scale neural network with a preprocess( ), nnObjunction( ), nnpredict() & sigmoind( ) function.
- Extracted/ Loaded the MNIST data set from the **.mat** file provided with all the data points for the handwritten digits.
- Separated Testing, Training and Validation data and normalized the all the data.
- Conducted feed forward propagation, back propagation and calculated the error function in the python script. (You can find the script on my git account in MLP1 folder as *script.py*)

DRONE COLLISION AVOIDANCE SYSTEM (C): A system which helps detect and avoid collisions between drones.

- Used concepts: Threading, Semaphores and Manhattan movement pattern.
- The capability of drones includes: takeoff, deliver, return, avoid collision
- When a drone requests landing, if a landing space is available it is allocated. If not, the drone keeps hovering around in a holding pattern. All the drones requesting landing are queued up and are served first come first serve basis.

UB MINECRAFT-HACKATHON (PHP, Python, HTML5): Helped organized the event by helping in conducting Minecraft server load tests using scripts and made script to send automated emails using PHP.

- Designing and managing the website for the Hackathon.
- Building and integrating the registration form for the Hackathon with the main website.
- Helped with gathering information about each building and its floor-plans and published them on the website.
- Created a photo gallery in the website for people to look back and see how they enjoyed the event.
- Helped with publications and social events with the publicity team for the whole event.

Backend developer for a time management app on the android play store.
(Application on playstore is chYour)

- Designing and managing the server end tasks.
- Helped in making the PHP scripts for automation of emails to users.
- Made a structure for storing the data from the user end.
- Send data from the client side to the server using JSON and REST API

SKILLS Java, Python, C, C++, SQL, XML, XQUERY, SPARQL
SOFTWARE Eclipse, PyCharm, Verilog, Processing, pgAdmin, Editix-XML, exist-db