Archana Pradeep

archieprad@gmail.com| arpradeep@ucsd.edu| archthegit.github.io | Singaporean H1B1 Eligible

EDUCATION

UNIVERSITY OF CALIFORNIA SAN DIEGO
Incoming Fall 23 M.S. Computer Science Student

NATIONAL UNIVERSITY OF SINGAPORE
BEng in Computer Engineering
Grad. June 2020 | Singapore
Cum. GPA: 4.25/5.00

LINKS

Website:// **archanapradeep**
Github:// **archanapradeep**
LinkedIn:// **archanapradeep**

TEACHING

Programming Methodology (CS1010)
Fall 2018
Embedded Systems Design Project (CG3002, CG4002)
Fall 2019 , **Spring 2020**

COURSEWORK

Computer Vision
Natural Language Processing
Intro to Artificial Intelligence
Software Engineering
Data Structures and Algorithms
Computer Architecture
Programming Methodology
Real Time Operating Systems
Networks

SKILLS

Experienced:
Golang • Python • Java • C

Familiar:
Matlab • MySQL • AWS • OpenCV • TensorFlow • PyTorch

VOLUNTEERING

2022 Mock interview session for **General Assembly** graduates

2022 **Code in the Community** Volunteer for L2 Python

ACHIEVEMENTS

2022 **Scholarship Recipient** AWS Machine Learning Engineer Scholarship Program

2022 **Bronze Medal** 15th National Taekwondo Poomsae Championships

2021 **Spot Award** Grab

2019 **Silver Medal** NUS Inter faculty games, Basketball

2019 **Third place** 14th STePS under CS3243 **Artificial Intelligence**

2017 **Honorable Mention** Orbital (Project Gemini)by NUS Computing

EXPERIENCE

NATIONAL UNIVERSITY OF SINGAPORE | Research Assistant
Jul 2022 - Jul 2023 | Singapore
- Working with Prof **Roger Zimmerman** and Prof **Ooi Wei Tsang** on multi-camera computer vision in video surveillance in collaboration with **Seagate** and funded by **AI Singapore**
- Exploring low power object detection on a **Jetson Nano/Orin**
- Increased speed of object detection by 7x with change in model from **Faster R-CNN** to **YOLOv3**
- Custom implementation of YOLOv3 to remove dependency on **MMDetection** library
- Integrated **YOLOv7** for faster and more accurate tracking
- Built end-to-end pipeline of transferring bounding-boxes and person features from multiple nanos (multi-cam) to a central server using REST

GRAB | Senior Software Engineer
Aug 2020 - Jul 2022 | Singapore
- Backend software engineer on the **Digibank** team
- **Spot award winner** for exceptional contribution to onboarding and wider Digibank team
- Authored and maintained **microservices** for onboarding orchestration, verification of users in **Golang**
- Worked on a bootstrap framework to be the backbone of all microservices with **logging, stats middleware, http routing, graceful shutdown** etc.
- Designed and implemented document upload flow for KYC using **Kafka, AV scanning, AWS S3** and in-house RTC.
- Designed and implemented Customer Identification number generation for newly onboarded customers using **RDS, Elasticache (Redis)**
- Designed and implemented **tracing middleware** to improve team's service observability.
- Designed and Implemented the **error response structure** common to all services across the bank

SHOPEE | Data Engineer
Jun 2020 - Aug 2020 | Singapore
- Worked on the internal version of **Apache Airflow**
- Used **Docker and Python** to improve efficiency of task schedulers by reducing the work done by each scheduler to 50%
- Enabled non-admins to access pools information on the UI

VISENZE | Software Engineer Intern
Dec 2019 - Jan 2020 | Singapore
- Intern on the **Data Platform Team**
- Worked with gRPC and protobuf to build REST-like APIs. Incorporated **spring-boot** and made the gRPC useable as an sdk (Python and Java)

AMAZON | Software Development Engineer Intern
May 2019 – Aug 2019 | Berlin, Germany
- Intern on the **AWS Bill Generation Team** (Line Item Data Service)
- Implemented auditor to check correctness of data in LIDS pipeline using **Java, Node.js**
- Coded Lambdas to trigger step functions, merge bills, create manifests, query bills using filters. Wrote step functions integrated with **AWS SQS, SNS**

AUTODESK | Software Development Intern
May 2018 - Oct 2018 | Singapore
- Worked on **Chaos Engineering** for the Wingman team.
- Worked with **AWS** (EC2, S3, IAM, SimpleDB, DynamoDB), **Java** , **Bash Script**
- Implemented multi-threaded scheduling to run multiple scenarios simultaneously.
- **Inner sourced** within Autodesk and used by **6 teams** on Staging and Dev applications.

PROJECTS

COLORIZE-PICTURES | Add color to old black and white photos
- Based on the Colorful Image Colorization paper. Repo:// **here**

READ.SLEEP.REPEAT | Google CodeU Program
- Worked in a team of 4 to create a web app for book lovers in **Java, Javascript, HTML/CSS** .

THA+ DANCE | Wearable device that can detect dance moves
- Responsible for the **machine learning** . Implemented **MLP** and **Random Forest** to predict dance moves with a 98% accuracy repo:// **here**

NETFLIX/SIMIANARMY | Open Source Contribution
- Fixed an issue where network chaos scenarios not running. view PR :// **here**
- Added instructions to create SimpleDB using AWS CLI to **documentation**