

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

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 - Present | 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, Elasticsearch (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**