



## EDUCATION

M.S., *Computer Science*, [UC San Diego](#)

Dec. 2022

Courses: Network and Distributed System, Database System Implementation, Recommendation System, Natural Language Processing

B.S., *Electrical Engineering*, [National Central University](#)

2017 – 2020

Courses: Data Structure and Algorithm, Operating System, Computer Organization

GPA: 3.97/4.00

## SPECIALIZED SOFTWARE SKILLS

Programming Language: Python, Typescript, Golang, Javascript/CSS/HTML, C/C++

Frameworks: Node.js, React.js, Git, VersionSet, CI/CD, Pipeline, Docker, Nginx, gRPC, TCP/IP/HTTP

AWS-CDK/AWS-SDK: EC2, Lambda, IAM, Bindle, Brass, CloudWatch Metrics and Alarms, S3, DynamoDB, Cloudfront, ACM

## PROFESSIONAL EXPERIENCES

Software Dev Engineer Intern: [Amazon, Alexa Org](#), SEA, U.S.

Jun. 2022 – Sep. 2022

**Full-Stack Project: Sensai Self-Service Onboarding Platform** (*Cyber Security Platform, Typescript, Node.js, Javascript/CSS/HTML, React.js, Git, VersionSet, CI/CD, Pipeline, AWS-CDK, AWS-SDK*) **(Return Offered)**

- ✓ Deployed Sensai Self-service Onboarding system and saved 93.75% of onboarding time per APP/API (4 hrs/APP|API → 15 mins/APP|API) for *Alexa Org*. [pptx](#)
- ✓ Designed and implemented Auto-Verification, Canaries and Monitoring modules for Self-Service Onboarding System

Full-Stack Engineer: [Self-Employed](#), CA, U.S.

Feb. 2022 – Now

**Full-Stack Project: My Personal Websites** (*Golang, HTML/CSS/Javascript, AWS EC2, Cloudfront, ACM, S3, Docker Compose, Nginx, Git, Distributed System, File System, AWS Serverless Framework*)

- ✓ Deployed my 1<sup>st</sup> website on AWS EC2 with Docker. [System Overview](#), [website](#), [github](#)
- ✓ Deployed my 2<sup>nd</sup> website with serverless framework and saved 90% of budget per month (50 USD/month → 5 USD/month). [System Overview](#), [website](#), [github](#)

Software Research Assistant: [MLBR Laboratory](#) (National Central University), Taoyuan.TW

Dec. 2019 – Sep. 2020

**Cuffless Deep-Neural-Network Blood Pressure Predictor by Introducing a New Statistical Feature Selection Algorithm** (*Python, Keras, Tensorflow, CUDA, Pytorch, Statistics, Algorithm, Data Science*)

- ✓ Delivered and designed a model from scratch that incorporated ~6x more data (2.5M+ vital sign records collected from 9000 patients) and achieved ~1.8x more accurate and state-of-the-art performance by introducing a new statistical algorithm
- ✓ **1<sup>st</sup> Author International Journal Publication: Hsu, Yan-Cheng; Li, Yung-Hui; Chang, Ching-Chun; Harfiya, Latifa N.** 2020. "Generalized Deep Neural Network Model for Cuffless Blood Pressure Estimation with Photoplethysmogram Signal Only." *Sensors* 20, no. 19: 5668. [System Overview](#), [doi](#), [github](#)

## SOFTWARE ENGINEERING PROJECTS

CSE132C Database Implementation

Feb. 2022 – Winter break. 2022

**Project: Buffer Manager and B+ Tree** (*C/C++, Clock Algorithm, B+ Tree, Backtracking, Binary Search*)

- ✓ Designed and implemented collaboratively a clock-algorithm-based buffer manager and a B+ Tree Indexing system with insert, split and range search functions for a file system. [github](#)

CSE 258 Recommender System

Oct. 2021 – Dec. 2021

**Project: Recommender System Rating Prediction** (*Python, Tensorflow, Latent Factor Model*)

- ✓ Designed a latent factor rating prediction model with tensorflow and achieved top 5% (25/552) performance in the class

## OTHER PROFESSIONAL EXPERIENCES

Software Engineer Intern: [Wiwynn Inc](#) (Acer's Child Company), Taipei.TW

Jul. 2021 – Aug. 2021

**Prometheus Infrastructure Testing Data Analysis and Software Toolkit Development** (*Python, Prometheus*)

Software Research Intern: [BioEE Laboratory](#), UCSD.US

July. 2019 – Aug. 2019