

Yu-Sheng Pao

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Education

University of Washington

Master of Science, Electrical and Computer Engineering

Sep 2022-Exp. May 2024

National Tsing Hua University

Master of Science, Electrical Engineering

Sep 2015-Jun 2018

National Taiwan University of Science and Technology

Bachelor of Science, Electrical Engineering (Double majors in B.B.A)

Sep 2011-Jun 2015

Skills

Programming Languages: C, C++, Java, Python, SQL, VBA, Bash

Software & Tools: Linux, Git, Tableau, Google Studio, Pandas, Visual Studio Code, AWS, MATLAB, Spark

Functional: Object-Oriented Design, Database, Software Development, Project Management

Professional Experience

DBS Bank Limited

Python Engineer

Feb 2022-May 2022

- Converting existing Statistical Analysis System (SAS) codes into Python codes
- Analyzing disparate sources of data using Python & Spark

WISPRO Technology Consulting Corporation

Data Analyst

Oct 2018-Nov 2021

- Designing and implementing a **SaaS prototype** ([link](#)) and successfully launched afterwards (more than 10 people in this project)
- **All-aspects** problem solving for 5G patent applications, 5G standards, and wireless communication technologies
 - Creating automation tools for daily tasks (reduce our client's working hours by at least 50%)
 - Offering consulting services for 5G patent applications
 - Keeping track of the latest 5G standards (i.e., IEEE and 3GPP) to provide analysis of 5G technologies trend
 - Being responsible for financial and team performance management (Using Google Studio and other BI tools)
- Transferring analytic methods into possible software solutions (In close collaboration with software team)
- Coordinating international branch's schedule and responsibilities

Industrial Technology Research Institute

Research Intern

Studying 3GPP SPECS to meet requirements of hardware & algorithm design (5G Channel Codes).

Projects

5G Patents Marketing Research & Development

Using Python to develop software tools for automatically monitoring 5G patent open data and giving full report about the marketing and technology trend

Automation Tools for 3GPP documents

Using Python to produce 3GPP meeting summary (used to be done manually by our clients and it is time sensitive); after applying the tool, my clients have 2 times time slot to review the technical documents

SaaS Collaboration for patent data

Working with software team to turn business idea (using open patent data to analyze the technology solutions and trend) into SaaS

An Early Termination Scheme for SCL-based Polar Decoder

Using C/C++ to design 5G Channel codes algorithms and to verify the algorithms; the result is commercially viable and has been patented in many countries including the US.

Autocomplete for map search suggestions

Using Java to implement a feature that helps a user select valid search results by showing possible inputs as they type.

Self-Driving Car

Using Robot Operating System (ROS) and python to navigate a racecar.

Publication

The United States Patent, Status: Granted

Yu-Sheng Pao, Hsin-Yu Lee, Yeong-Luh Ueng, Chin-Liang Wang, US Patent No. 16/823351, 2020, "SUCCESSIVE CANCELLATION LIST-BASED DECODER AND DECODING METHOD THEREOF", USPTO.

Conference Paper

"An Early Termination Scheme for Successive Cancellation List Decoding of Polar Codes," ICASSP 2020 - 2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)