

# Yi-Yang Lin

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## EDUCATION

### Boston University

MA, USA

#### M.S. in Computer Science

Sep. 2022 – May 2024

- **GPA:** 3.52/4.0
- **Courses:** Advanced Programming Techniques, Biometrics, Computer Language Theory, Graduate Operating Systems, Health Informatics, Health Information Systems, Mobile Application Development with Android, Server-Side Web Development, Software Design and Patterns, Web Application Development

### University of Wisconsin–Madison

WI, USA

#### B.S. in Computer Science

Sep. 2018 – May 2022

- **Advanced Major GPA:** 3.41/4.0
- **Courses:** Algorithms, Artificial Intelligence, Advanced Calculus, Building User Interfaces, CS Education, Computer Engineering, Computer Graphics, Data Programming, Data Structure, Database Management Systems, Discrete Mathematics, Linear Algebra, Machine Organization, Software Engineering

### Bellevue College

WA, USA

#### A.A.S. DTA in Computer Science with Distinction

Sep. 2016 – Jun. 2018

- **GPA:** 3.95/4.0

## WORK & RESEARCH EXPERIENCE

### Google LLC

Remote / Taipei, Taiwan

#### HARDWARE ENGINEERING INTERN

Full-Time Jun. 2023 – Aug. 2023

- *Pixel Mobile Wireless*, 5G, RF L1, Modem Software Engineering
- Designed Script Documentation to connect C++ Configuration files, inputting to signaling equipment.
- Implemented infrastructure *Piper*, *google3*, *CLs* tools to design Python Script, connecting input in Pixel RF testing equipment.
- Utilized SQL querying data from *Spanner* database to generate *combo key* data structures.

### Intel Corporation

Remote / Taipei, Taiwan

#### RF WIRELESS DRIVER VALIDATION ENGINEER in Cross-Validation-Testing

Full-Time Jan. 2021 – Nov. 2021

- Tested OSI Physical Layer of Wireless Adapter Driver (Bluetooth/WiFi) with Microwave Analyzer in *WCS Lab*
  - Ensured daily regression delivered expected performance with each dev commit.
  - Clarified physical issues not related to driver performance.
  - Researched the Transmission and Reception performance with testing flows in *HIT Manager* and *Keysight* equipment.
- Implemented and Maintained Hardware or Software Regression Automation Validation Tools
  - Maintained automation Cloud-based Infrastructure *Titan* to monitor each RF shielded station.
  - Created automatic scripts and wrote documentations to resolve configuration issues.
  - Set up testing operating system by scripting languages and arranged RF shielded room environments.
- Intel Wireless Adapter Driver Validation
  - Delivered accurate daily regression results from 100+ PC stations located in Israel, India, Taiwan to code develop team.
  - Differentiated issues affected by which develop teams and discussed on *JIRA* platform.

### Computer Science Learning Center at UW-Madison

WI, USA

#### COMPUTER SCIENCE TUTOR

Part-Time Jan. 2019 – May 2019

- Discussed with tutors in educational pedagogy and general teaching practices within weekly seminars.
- Tutored 50+ students on CS course programming projects in *Java* and discuss tutoring improvement with staff.
- Recorded YouTube video demonstrating *Makefile* instructions, helping students understand concepts in programming class.

## SKILLS

### Programming Languages

Assembly, C / C++, Java, JavaScript, MATLAB, Python, Scripting Languages, SQL, TypeScript, Kotlin

### Web

HTML, CSS, XML, Sass, Vue.js, React.js, React Native, three.js, node.js, netlify, Bootstrap, PHP, AWS, GCP

### Tools

Agile, Firebase, Git, Jira, LaTeX, Maven, Makefile, MVC, Selenium, SQL Server, Unit Testing, Unix / Linux Shell

## HONORS & AWARDS

2023	<b>Talk, 5G Registration Procedure</b> , <i>Google Pixel Mobile Wireless</i>	Taipei, Taiwan
2023	<b>Sigma Xi, Scientific Research Honor Society</b> , member of	Boston, MA
2021	<b>Talk, Intel WIFI xVT Regression</b>	Taipei, Taiwan
2020	<b>Top 10</b> voted proposal, <i>UW CS. Against 150+ software engineering project proposals.</i>	Madison, WI

## TECHNICAL PROJECTS & SOFTWARE TOOLS

<b>Electronic Health Record System</b> , <i>Server-Side Development</i> : Developed healthcare system app for physicians, staff, and patients, performing CRUD operations for calendar and messaging.	MongoDB Express
<b>OpenAI Chatbot</b> , <i>Generative AI Integration</i> : Developed a real-time chat app, integrating GPT-4 model with serverless functions on AWS Amplify, Lambda, API Gateway, route 53.	Generative AI AWS
<b>Social Media Video Downloader</b> , <i>Advanced Programming Techniques</i> : Designed to parallel download videos from video platforms such as YouTube, Instagram, and TikTok, based on given keywords and links.	Python Shell Script Multi-threading
<b>FitnessTrack</b> , <i>Android Development</i> : Allows users to record the food items they eat at each meal and assign a health rating to each meal.	Kotlin Java
<b>WiscShop</b> , <i>Voice User Interface</i> : Virtual assistant agent, allows user to request navigations, purchasing products by asking virtual assistant agent.	JavaScript Dialogflow
<b>Fitness Tracker</b> , <i>Mobile User Interface</i> : iOS/Android app, designed a fitness tracking mobile app in react native, expo, and RESTful APIs, storing health information on API server.	JavaScript React Native
<b>Course Guide System</b> , <i>User Interface</i> : React app, online course selection system, implemented rating and course recommendation system based on user interests.	JavaScript React
<b>Jira Bug Auto-Reporter</b> , <i>Intel xVT Team</i> : Web crawler, automatically report suspected bugs from daily regression and deliver to code develop teams.	Python Selenium
<b>Regression Sum-Reporter</b> , <i>Intel xVT Team</i> : Compile the validation analysis reports from each station into a final report on the mirror servers. Detect file dependencies and combine them by configuring CSV, XML, and file structures.	Python BeautifulSoup
<b>BIOS UEFI Testing OS Image Doc.</b> , <i>Intel WCS</i> : Wrote a doc for Testing environment setup, downloading default testing OS Windows from Intel's servers around the earth.	Technical Documentation
<b>Unix Shell - Wish</b> , <i>Operating Systems</i> : Created a command line interpreter, having functions to read executables in built-in commands, read parallel commands by &, redirection > .	C
<b>Wardrobe</b> , <i>Software Engineering</i> : Web application helps user with outfit decision by uploading physical clothing pictures into firebase virtual wardrobe, created an AI background removal feature with remove.bg API by modified Google cloud functions.	JavaScript / React git backend API / GCP
<b>Buffer Manager</b> , <i>Database Management Systems</i> : Structured top of pages from I/O Layer by B+ tree structure, utilized indices stored data in file on disk, creating a disk image of the index file.	C++
<b>Dynamic Memory Allocation</b> , <i>Machine Organization and Programming</i> : Imported system calls sbrk, malloc, free, to dynamically manage heap memory using next-fit placement policy.	C System Call
<b>3D Graphics Town</b> , <i>Computer Graphics</i> : Interactive graphic website using THREE.js for creating 3D animations and applying <i>Bezier</i> curve to structure object's motion, manipulated camera views.	JavaScript WebGL
<b>Maze Solver</b> , <i>Artificial Intelligence</i> : Applied BFS algorithm to search target in 2D maze, added successors to the queue that implements the frontier set for searching method.	Java
<b>Query Tuning</b> , <i>Database Management Systems</i> : Query optimization improved performance more than 98% by implementing index, instance, pre-defined table, sub-query.	SQL SQL Server
<b>Meal Plan Analysis</b> , <i>Data Structure</i> : Meal database system with GUI, food choice analysis.	Java / JavaFX

## LEADERSHIP & EXTRACURRICULAR ACTIVITY

<b>BRIDGE International Peer Mentor Program</b> Peer Mentor	WI, USA
• Built the environment for cross-cultural friendships and community participants of diverse backgrounds.	
<b>Wisconsin Union Badger Market at Medical Science</b> Food & Beverage	WI, USA
• Became a barista of coffee shop and served toasted sandwiches.	