

Onsang Felicia Yau

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EDUCATION

University of Pennsylvania, Penn Engineering, Philadelphia, PA 08/2022 - **12/2024 (Expected)**
Master's in Computer and Information Technology GPA: 3.8/4.0
[Dean's Master's Scholar](#) | 2023 Grace Hopper Celebration Virtual Scholar | [AnitaB.org Membership](#) '23-24 | Advocacy Chair
@ Penn Lambda Grad | Committee @ [SEAS Wellness](#)

Cornell University, College of Agriculture and Life Science, Ithaca, NY 08/2018 - 05/2022
BS in Animal Science (Digital Agriculture) Major GPA: 3.9/4.0; Overall GPA: 3.7/4.0, Cum Laude

TECHNICAL SKILLS

Programming Languages: Java • Python • C • JavaScript • C++ • R • SQL • Kotlin • x86 Assembly | **Full Stack Development:** Figma • REST API • Git • CSS • HTML • Bootstrap • Express • NodeJS • React • MongoDB • AWS S3 • Spark • CI/CD Pipeline
Mobile App: Android | **Systems:** MacOS • Linux • Multithreading | **Product Management:** Agile • Prototyping • UX

SELECTED WORKING EXPERIENCE

Cloud, Network, and Digital Service Engineering Graduate Intern, the MITRE Corporation, Remote 05/2023 – 08/2023

- Engineered and led the presentation of a responsive web application using HTML5, CSS3, JavaScript, and AJAX on AWS, integrating a NoSQL database and RESTful API with Node.js and Express.js for real-time updates. Managed the full project lifecycle on GitHub, enhancing user interaction and ensuring scalability, while effectively communicating and building consensus with government stakeholders

Research Assistant IV & Lab Manager & Lab Consultant, Manfred Lindau Lab ([Published Abstract](#)) 01/2021 – 02/2023

- Analyzed electrophysiological data of chromaffin cells with advanced techniques for quantitative assessment under diverse conditions. Developed data management protocols for large datasets, ensuring integrity and accessibility

Software Quality Assurance Tester, eCornell, Ithaca, NY 03/2022 – 07/2022

- Enhanced eCornell's Machine Learning eLearning course by leading white-box testing, resolving 50+ issues, improving product quality by 15%, and implementing 10+ platform enhancements to boost student engagement

Software Engineering Intern (Python), Ithaca, NY ([Poster Link](#)) 06/2019 - 08/2019
Sustainable & Digital Animal Agriculture Research Internship | Kristan Reed Lab | Cornell University

- Orchestrated the development of a disease simulation model in Python for ketosis, mastitis, and milk fever in lactating cows, analyzing data to inform predictive analytics and enhance decision-making in farm system management

SELECTED INFORMATION TECHNOLOGY PROJECTS

Google Search Engine Clone Project 08/2023 – 01/2024

- Engineered an HTTP/HTTPS web server in Java for dynamic content serving and session management, deployed on Amazon EC2, with an in-memory and persistent key-value store and analytics engine; developed a distributed web crawler and indexer for a cloud-based search engine using PageRank algorithms, leveraging EMR, Apache Spark, and Kubernetes for enhanced processing and scalability

SocialGround Web App 09/2022 – 12/2022

- Led a 4-member team to develop a MERN stack social media application, focusing on UI/UX design (Figma, Bootstrap) and integrating 15 custom components. Established 8 REST API endpoints and a MongoDB database, utilized AWS S3 for media storage, and applied Agile and Git for project management, improving product quality by 20% via extensive testing (Cypress)

Bovine Sensor Data Analysis Project 02/2021 – 05/2021

- Created predictive models for cow survival and profitability based on 6 types of cow sensor data collected on-farm in a 4-person team, employing Python, Scikit-learn, and Stats-models across 374 features and 85,981 observations

SELECTED HACKATHONS

Carnation – 2024 Health Hackathon, Technical Product Manager & IOS App Designer 03/2024 - **Present**

- Spearheaded the technical product management and design of Carnation, an AI-driven iOS app, at the 2024 Health Hackathon, innovating accessible healthcare solutions for the LGBTQIA+ community by integrating personalized matching algorithms and ensuring HIPAA compliance

Restz – 2024 FemmeHacks, Technical Product Manager & Full-stack Engineer 02/2024

- Led a team of four to develop "Restz", a one-click gender neutral bathroom finder and students' voice collection web app, awarded the "Most Innovative Hack" at the 2024 FemmeHack; demonstrated exceptional skills in innovative technology application, user-centered design, and agile development

MeCoo – 2023 FemmeHacks, Technical Product Manager & Front-end Developer 02/2023 – 11/2023

- Spearheaded a team of 4 to win the "Most Innovative Award" by developing a thermo-sensory bracelet for menopausal care, including coding the companion Android app in Java and XML using Android Studio

Menoasis – 2022 Health Hackathon, Technical Project Manager 02/2022

- Led a 6-person team to create a 15-minute Immersive Health recharge experience aimed at supporting menopausal women in the workplace

Farm eTech – 2021 Digital Agriculture Hackathon, Frontend Developer 03/2021

- Developed a web platform with an SNS messaging system to deliver agricultural insights to farmers, utilizing satellite data analysis (RGRI, NDVI, NDWI)

Nourish – 2021 Animal Health Hackathon, Product Development & Frontend Developer 02/2021

- Managed a 5-person team to design and pitch a service for real-time feline nutrition monitoring, combining software and hardware solutions for indoor cat care

ENGINEERING TEACHING EXPERIENCES

Graduate Teaching Assistant, CIT5900: Programming Language & Techniques 08/2023 – **Present**

- Directed weekly recitation in Python and Java for 110 students, designing coding challenges and quizzes. Provided individual support during office hours, debugging 20+ projects and grading 30+ assignments weekly