Anh Duong

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EDUCATION

Kennesaw State University **Kennesaw, GA**

Bachelor of Science in Computer Science, Minor in Software Engineering, GPA: 4.00 *Aug 2021 – Dec 2024*

- **Relevant Coursework**: Data Structures, Algorithm Analysis, Programming and Problem Solving I & II (OOP), Computer Organization and Architecture, Introduction to Database System, Calculus I & II, Discrete Mathematics, Linear Algebra
- **Honors & Awards**: Sophomore Research Scholar, Summer Undergraduate Research Scholar, First-Year Research Scholar, Honors Program (Honor Research Scholar), x4 President's Lists, Honors Presidential Academic Scholarship.

SKILLS

- **Programming Languages**: Java, Python, JavaScript, HTML/CSS, SQL
- **Libraries and Frameworks:** pandas, NumPy, Flask-ask
- **Developer Tools**: Raspberry Pi, AWS, Google Cloud, Google APIs, Alexa Skills Kit SDKs, Eclipse, IntelliJ IDEA, Visual Studio, PyCharm, Jupyter Notebook, Ubuntu, GitHub

RESEARCH EXPERIENCES

Sophomore Research Scholar **Marietta, GA**

Research project: "GlucoCheck: Non-invasive blood glucose monitoring" *Aug 2022 – May 2023*

- Developed Alexa Skill to retrieve requested glucose value from the GlucoCheck Database using Python and **REST API** and successfully updated most recent value to user at real time with 100% accuracy.
- Developed an application to connect voice-controlled IoT devices to database middleware using **Python**, Flask, and REST API.
- Analyzed machine learning techniques behind skin color and humidity sensors and conducting studies on light-skin interactions contributes to training ML models and reduces **10%** of the average errors in measuring blood glucose values.
- Conducted a systematic literature review on voice assistants in healthcare for a research paper and book chapter.

Summer Undergraduate Research Scholar **Marietta, GA**

Research project: "Smart Voice Assistant for Non-invasive IoT Software for Diabetes Management" *June 2022 – Aug 2022*

- Developed **Python** script and Alexa Skills to control Raspberry Pi by using Amazon Echo.
- Used **Flask-ask** and **Ngrok** to establish connections between Raspberry Pi and Amazon Alexa Developer Console, allowing Alexa to perform tasks on Raspberry Pi.

First-Year Research Scholar **Marietta, GA**

Research project: "Non-invasive IoT Software for Diabetes Management" *Oct 2021 – May 2022*

- Collaborated with graduate students in designing mobile application interfaces, implementing a testing database using **MySQL**, and researching about the potential integration of voice-controlled IoT devices and Google Home Mini using **Google Actions Console**, Actions SDK, **JSON**, and **Python**.
- Organized, reviewed, and collected data to write a research paper and submitted to **IEEE** International Conference of Digital Health (ICDH) in April 2022.

PROJECTS

Alexa Controlling LED Light on Raspberry Pi

Developer *June 2022*

- Established the connection between Raspberry Pi and Amazon Alexa Developer Console by using Flask and Ngrok
- Developed Python script and JSON file that allow Alexa to turn on/off the LED light on the Raspberry Pi
- Skills: Python (Flask/Flask-ask, Ngrok, Pandas), Raspberry Pi, Alexa Skills Kit SDKs, Alexa Developer Console

"The College Experience"—Programming and Problem Solving I Honors **Kennesaw, GA**

Project Member *Aug 2021 – Dec 2021*

- Developed an adventure text-based game, designed using pseudocode and **UML** flowchart, implemented using **Java (OOP)**, and tested using **JUnit** Tests.
- Implemented webpage using HTML, CSS, and **JavaScript** to showcase the class main project.
- Organized team meetings, communicated and encouraged team members, and assigned tasks and roles to each member.