SON VU

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EDUCATION

University of Pittsburgh   **August 2019 - May 2025**
Bachelor's, Computer Engineering   *GPA: 3.5*
- Relevant Courses: Computer Architecture, Data Structures & Algorithms, Software Engineering (Microservices, REST API), Embedded System (STM32), Computer Networks (TCP/IP)

PROFESSIONAL EXPERIENCE

Philips Respironics   **Pittsburgh, PA, USA**
Software Engineer Co-op   *August 2023 - Present*
- Implemented unit and component testing for Kafka messaging queue integration with enterprise Java Spring Boot backend application using Junit and Mockito
- Developed health patients POU graphs component in JavaScript using Angular and React over 3 Rally sprints within Agile Scrum environment
- Developed Java and Python scripts to process approximately 1.4 million and 1.7 million patients and equipment assignment records respectively from MongoDB using Studio 3T

SHREC   **Pittsburgh, PA, USA**
Research Assistant   *May 2022 - August 2022*
- Researched pre-image processing techniques and FPGA hardware acceleration to minimize latency in object identification and hand segmentation
- Implemented software and hardware emulation in C/C++ for Gaussian and Sobel filters using Vitis on Ubuntu OS, achieving 67% reduction in latency.

Vietsoftpro   **Hanoi, HI, Vietnam**
Engineer Intern   *March 2021 - July 2021*
- Researched technological solutions for virtual reality and 3D representation using Python for webs crape
- Designed a 3D layout of the Temple of Literature using SketchUp to analyze product placement

PROJECTS & OUTSIDE EXPERIENCE

JobScope   **Pittsburgh, PA, USA**
                                                                                                              May 2024 - Present
- Developed a SaaS platform enabling students to analyze job market requirements with React and MUI frontend, Java Spring Boot backend, and PostgreSQL Docker container
- Implemented RESTful APIs on frontend and backend to navigate data for visualization using Chart.js library
- Deployed platform to an AWS EC2 instance using SSH protocol, Nginx and implemented simple CI/CD pipeline using GitHub action

Budget Friendly Timular   **Pittsburgh, PA, USA**
                                                                                                              January 2023 - May 2023
- Led end-to-end product development, encompassing hardware design, circuit board layout (Altium Designer),
- component sourcing, software development (C/C++), and final soldering and assembly
- Achieved a 25% cost reduction compared to the Timeular device by eliminated tiered subscriptions

Logical Unit Construction   **Pittsburgh, PA, USA**
                                                                                                              August 2022 - December 2022
- Developed logical units, including 32-bit adders, ALU, and a 32-bit CPU in VHDL using Xilinx Vivado
- Implemented test benches for behavioral and hardware simulations using C/C++ and VHDL

Computational Modeling and Simulation   *August 2022 - December 2022*
- Utilized physics models and formulas to generate precise visual simulations with Vpython
- Simulated projectile motions, air resistance, orbits, and gravitational physics models

SKILLS

Skills: Java, Python, JavaScript, TypeScript, REST APIs, React.js, AngularJS, MongoDB, JUnit, Digital Ocean, Docker, Kubernetes, Apache Kafka, Gradle, Maven, Confluence, JIRA, Agile, Git, HTML/CSS, Java, Altium, Python, C/C++, Spring, Rally, Slack, Confluence