Ignatius Ali Alamsyah Djaynurdin

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Objective

Accomplished fourth-year Computer Engineering with a concentration in Computer Hardware and Emerging Architecture & System Architecture. Proficient in hands-on work with hardware/embedded systems, notably in the realm of battery packs and monitoring systems designed for electric vehicles. Actively engaged in the management of student organizations, looking for Spring 2024 internship opportunity (January - May).

Education

Georgia Institute of Technology | Atlanta, GA *August 2022 – Present*
Candidate for Bachelor of Science in Computer Engineering, Dean's List Expected Graduation: May 2025

Bellevue College | Bellevue, WA *September 2020 – June 2022*
Transfer with 62 Credit Hours, Graduated with High Distinction, GPA 3.96

Skills

Programming: Java, C, C++, CSS, HTML, JavaScript, PHP, R, MIPS Assembly
Software: KiCad, STM32, Arduino, MBED, Microsoft 365, Adobe Creative Suite
Communication: Design proposals, presentations, poster design (printed and Instagram feeds), edited company profile video
Languages: English (fluent), Indonesian (native)

Experience

Polytron Indonesia | Kudus, Indonesia *May 2023 – July 2023*
Research and Development Embedded Software Engineer Intern

- Developed algorithms for determining the State of Charge (SoC) and State of Health (SoH) of a battery pack.
- Implemented Kalman filter for precise battery performance calculations.
- Modified PCB to enable UART communication for serial monitor interaction to start data acquisition to gather charging and discharging characteristics for creating usable datasets.

Relevant Coursework

Digital System Design: Explored gate concepts, K-maps, and Boolean algebra. Applied state machines and delved into data path design. Proficient in VHDL and FPGA use, with hands-on experience in breadboarding. Analyzed IC duty cycles, and propagation delays, and worked with peripherals.
Data Structures and Algorithms: Work with advanced data structures used in software development and become familiar with sorting algorithms, pattern matching, and graphs.
Circuit Analysis: Understanding of the concepts of voltage, current, power, and energy, also solving DC, AC, and transient circuits, circuit elements including voltage and current sources, resistors, capacitors, inductors, transformers, and ideal op-amps.
Introduction to High-Level Language and Assembly Programming: Hardware development for microcontrollers using design principles for sequential and procedural programming in C and MIPS assembly language.

Leadership

Georgia Tech Solar Racing | Batteries and BMS Team Member *September 2022 – May 2023*

- Utilized Riedon Shunt current sensor for the battery pack.
- Designed and implemented various system circuit boards for BMS, current sensor, and regulator using KiCad.

Indonesian Student Association Seattle | Designer / Creative Media *October 2021 – June 2022*

- Designed Instagram posts with more than 1000 likes and 10000 views with Adobe Creative Cloud.
- Illustrated UI and revitalized the organization's website.

Bellevue Indonesian Club | *Head of Creative Media* *August 2021 – June 2022*

- Planned and conceptualized a creative campaign for fundraising with over 4000 views.
- Designed Instagram posts with more than 200 likes and 3000 views with Adobe Creative Cloud.

Indonesian Catholic Student Association Seattle | *Head of Creative Media* *July 2020 – June 2022*

- Conceptualized creative marketing and campaign design with more than 40 Instagram posts with more than 350 likes and 3000 views with Adobe Creative Cloud.
- Increased social media engagement by 200%.