Evelyn Putri

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Education

Duke University August 2017 to May 2021

B.S.E. Electrical & Computer Engineering, B.S.E. Biomedical Engineering GPA: 3.88

Relevant Coursework: Microelectronic Devices, Signal Processing, Data Structures & Algorithms, Computer Architecture, Medical Device Design & Instrumentation, Medical Imaging

Activities and Leadership: Project Tadpole, E-Team Mentor, DTech Scholar, Rewriting the Code Hub Leader

Skills

Product Design: Rapid prototyping, Eagle, Fusion 360, Simulink, Microcontrollers, SPICE, JMP

Software Development: Java, MATLAB, C#, SQL, C, HTML/CSS, Python

Work Experience

Medical Device Engineer June 2020 to August 2020

NeckTec, Duke University Department of Surgery Durham, NC

- Designed circuit schematic and PCB (***Eagle***) to monitor neck posture with a gyroscope, real-time alert user of poor posture, and upload data to MongoDB over WiFi with a Particle Photon microcontroller
- 3D-printed mechanical encasing (***Fusion 360***) to produce ready-to-test prototype in operation room
- Collaborated with Duke ergonomics coordinator and physicians to outline surgeon needs

Research Assistant August 2019 to Present

Center for Global Women's Health Technologies Durham, NC

- Design and assemble circuits for low-resource breast diagnostics imaging tool using ***Arduino***
- Develop ***Java GUI*** software for convenient control of high-power LEDs in fluorescence imaging
- Conduct ***MATLAB*** simulations to determine optimal image collection configuration for estimating oxygen saturation levels in vasculature

Semiconductor Test Engineering Intern May 2019 to August 2019

Cree | Wolfspeed Research Triangle Park, NC

- Built ***C# GUI*** to automate the electrical testing of RF devices with an upgraded wafer probing tool
- Qualified new electrical test system by performing statistical analysis utilizing ***SQL*** queries and ***JMP***
- Soldered and assembled hardware accessories to interface with 8 on-wafer testing tools
- Led professional development event for women in tech with RTC and Cree's Women's Initiative

Head Lab Teaching Assistant (TA) January 2019 to Present

Duke University Electrical & Computer Engineering (ECE) Durham, NC

- Lead weekly lab sessions utilizing electronic test equipment, ***MATLAB***, and ***Simulink*** for 100 students
- Head 6 Signals and Systems Lab TAs effectively, grade lab assignments using Gradescope, and manage virtual platforms for lab sessions and communication between students and instructors

Technical Projects

Fatigue Prevention in Motor Rehabilitation of Stroke Patients August 2020 to Present

- Quantify fatigue by analog filtering gait, posture, and photoplethysmography data, sending near real-time biometric data with Bluetooth protocol, and signal processing using ***Python***
- Reduce risk of injuries in patients by providing near real-time alerts of fatigue on Android phone

Spirometer October 2019 to December 2019

- Assessed lung air flow and volume through analog filtering of pressure signals and ***Arduino*** processing