# Vihangi Sandakirani

Electronic and Computer Science Undergraduate

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## ABOUT ME

A passionate and driven fourth-year Electronic and Computer Science undergraduate with hands-on experience in full-stack development, specializing in frontend development using React. Skilled in building responsive and user-friendly web and mobile applications, along with creative expertise in 3D modeling and design. Proficient in Java, JavaScript, and modern web technologies, with growing knowledge in AI/ML systems and cybersecurity fundamentals. My academic journey includes a final-year research project focused on a real-time pitch detection assistant system for singing accuracy. Actively involved in leadership and design roles within ECSC university clubs, where I've organized and participated in numerous tech events, webinars, and competitions. Currently focused on building impactful digital experiences by blending creativity, intelligence, and security awareness.

## EDUCATION

**University of Kelaniya** — Kelaniya, Gampaha
*BSc (Hons) in Electronics and Computer Science* — *(Reading)*

- GPA: 3.52 (Current)

**Gothami Balika Vidyalaya** — Colombo 10, Colombo
*2011 - 2020*

- **G.C.E. Advanced Level Examination (Physical Science Stream)** [2020]
  Grades: A in Mathematics, B in Chemistry, C in Physics
  Z-Score: 1.5459
- **G.C.E. Ordinary Level Examination** [2017]
  Grades: 7A, 2B

## Community & Leadership

*Electronics and Computer Science Club/University of Kelaniya* — Kelaniya, Gampaha
*August 2023 - August 2024*

- Collaborated with ECSC in UOK Robot Battles 2k24
- Organized Friendly cricket match.
- Organized a Seminar Series
- Organized Fundraising Campaigns

## CERTIFICATIONS

- **CC.E.O 2.0 Case Study Competition – Participation Certificate** *AIESEC in University of Kelaniya - July 2023*
- **Smart Panel Light Transformer – Innovation Showcase** *ICAPS 2024 – July 2024*
- **Introduction to C#** *Issued by Sololearn - July 2024*
- **Introduction to C** *Issued by Sololearn - July 2024*
- **Introduction to HTML** *Issued by Sololearn - July 2024*
- **Introduction to CSS** *Issued by Sololearn - July 2024*
- **Introduction to Cyber Security** *Issued by Simplileran - August 2025*

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## PROJECTS

**Personal Developer Portfolio |** *React*, *TypeScript*, *CSS* GitHub

- Designed and developed a personal portfolio website to showcase projects, technical skills, and certifications using modern web technologies.
- Implemented animations, responsive design, and professional UI with a focus on smooth user experience.

**Smart Panel Light Transformer |** *IoT Project* *Team Member - 4th Semester*

- Designed and implemented an IoT-based smart panel light transformer system to enable remote control and automation of lighting.

**Mobile Shop Management System |** *C*, *Visual Studio*, *MySQL* GitHub
*Team Member - 5th Semester*

- Developed a comprehensive mobile shop management system with secure login, inventory management, and customer record handling, enabling efficient phone stock tracking and operations.

**Mobile App for Coffee Shop (Cafe Bloom) |** *Kotlin*, *Android Studio*, *SQLite* GitHub
*Team Member - 6th Semester*

- Developed a fully functional mobile app for an online coffee shop, allowing customers to browse, customize, and order coffee seamlessly.

**Online Mobile Phone Selling System |** *React*, *TypeScript*, *MongoDB*, *Spring Boot* GitHub
**(Cellular World)**
*Team Member - 6th Semester*

- Developed a comprehensive online mobile phone selling website incorporating both customer and admin sections to facilitate user-friendly browsing, purchasing, and efficient inventory management.

**Mobile App | Pitch Meter UI** *(React Native + Expo)* GitHub

- Developed a React Native mobile app using Expo for pitch-based audio analysis with live recording functionality.
- Designed a clean and responsive user interface allowing users to select mode, singer, song, and desired pitch easily.
- Ensured smooth user interaction with an intuitive single-tap recording feature.

**Real-Time On-Pitch Singing Detection Assistant for Sinhala Songs |** *Research Member– Final Year Project*
*Python*, *Librosa*, *Flask*, *MongoDB* *(Group Project – 3 Members)*

- Developed a web-based system to detect and evaluate real-time singing pitch accuracy by comparing user vocals with reference notes.
- Integrated key and tempo detection for Sinhala songs and implemented real-time pitch shifting for effective alignment.
- Trained and applied a machine learning model to classify singer gender from vocal samples to enhance performance.

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## Technical Skills

**Languages:** Java, Html, Css, JavaScript, PHP
**Databases:** MongoDB
**Frameworks & Libraries:** Spring Boot, React.js, React Native, TensorFlow, Matplotlib
**Developer Tools:** Android Studio, Visual Studio, Visual Studio Code, GitHub
**Additional Tools:** Figma, Canva, Blender
**Applications:** Web Development, Mobile Development, UI/UX Design, MATLAB

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## REFERENCE

**Professor A L A K Ranaweera**
Senior Lecturer, Programme Coordinator (ECS)
Department of Physics and Electronics
University of Kelaniya
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