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# Abel Lee

Full-Stack Developer with hands-on experience in building and deploying scalable web applications using Next.js, React, Node.js, and MongoDB. Proficient in authentication, payment integration, and cloud deployment on platforms like AWS, Firebase, and Vercel. Strong foundation in both frontend and backend development, with a focus on performance, clean code, and seamless user experiences. Actively seeking opportunities to grow as a developer and contribute to impactful products.

## Work Experience

### Software Developer Intern

*Truffle Technologies - Remote*                                              **May 2025 — Present**

- Developed and maintained scalable web applications using **React.js**, **MobX**, **HTML/CSS**, and **JavaScript**, improving load time and code maintainability.
- Built **responsive**, **mobile-first UI components** following industry best practices, enhancing user engagement across devices.
- Integrated front-end features with **RESTful APIs** and third-party services, enabling real-time data synchronization and functionality.
- Ensured **cross-browser and cross-platform compatibility**, reducing reported UI issues by **30%** and improving accessibility.
- Participated in **User Acceptance Testing (UAT)** to validate business features, ensuring **100% alignment** with stakeholder requirements pre-release.
- Wrote **clean, modular code** and followed modern development standards (e.g., **component reusability**, **state management**), reducing future development time by **25%.**

### Software Engineer Intern

*MGG Software - Hybrid*                                                      **June 2024 — Present**

AI Video Automation:

- Engineered a **cost-free AI video automation pipeline**, leveraging **open-source models** to eliminate production costs and scale video output by **5×.**
- Integrated **locally hosted Stable Diffusion** for generating slide visuals and utilized **avatar generation models** for lifelike AI presenters.
- Automated the end-to-end video creation process using **FFmpeg**, reducing manual intervention by **90%** and streamlining production.
- **Product Demo**

Full stack Learning Management system:

- Built a s**calable AI-powered Learning Management System** using **Next.js, MongoDB, and Stripe** for educational content delivery.
- Implemented **NextAuth.js** for secure OAuth and email authentication.
- Designed a dashboard for seamless course purchasing and learning.
- Developed a **robust Stripe payment system** with automated access management.
- **IntelliLearn Studio Website URL**

## Education and Certifications

- ***Singapore University of Technology and Design (SUTD)*** — *Computer Science and Design*       **2025 - 2029**

  Recipient of the ***Undergraduate Merit Scholarship***

*Enrolled in  **SUTD Technology and Entrepreneurship Programme (STEP)** which is a  4-year integrated programme nurturing entrepreneurial innovators in venture-building*

- **The Singapore-Cambridge General Certificate of Education Advanced Level (GCE A-Level),** Hwa Chong Institution, Singapore.                                                                                                               **2021 – 2022**
- **Integrated Programme,** Hwa Chong Institution, Singapore                                         **2017 – 2022**

## Projects

### Software Engineer
*Haven Heart SG*                                     **December 2024 – present**

- Built a **full-stack workshop booking platform** using **Next.js** and **MongoDB**, improving user accessibility and increasing engagement from mental health professionals.
- Integrated **Stripe payments**, enabling secure and seamless transactions, which helped streamline registrations and reduce drop-off rates.
- Designed a **personalized onboarding questionnaire**, improving user experience and enhancing relevance of workshop recommendations.
- **Haven Heart SG Website URL**

### Project Leader
*Project getDigital!*                                                       **April 2021 - July 2022**

- Led a team to empower students from disadvantaged families at Ulu Pandan Stars by teaching them to effectively use Google tools such as Docs, Slides, and Sheets.
- As the team leader, I coordinated efforts to deliver hands-on lessons, equipping students with valuable digital skills that they could apply in their daily lives and future academic projects.

## Awards & Achievements

### Track and Field athlete

- **Broke the National Schools Record** for 'A' Division Long Jump (2022), setting a new national benchmark
- **Two-time National Schools Gold Medalist** in both **Long Jump and High Jump (A Division, 2022)** and **(C Division, 2018)**
- Ranked **Top 10 All-Time in Singapore – 6th in Long Jump**, **9th in High Jump**
- **Qualified** for the **Asian Youth Athletics Championship**, **20th Asian U20 Championship**, and **nominated** for the **32nd SEA Games.**
- **Two-time** National Schools **'C' Division gold medalist** in Long Jump & High Jump (2018)

### Leadership & Community involvement

- **Led Hwa Chong Institution's CIP Council**, mentoring **10 service-learning groups** and organizing key initiatives like the **Chinese New Year Food Drive**.
- **Led a sign language course** for J1 students, promoting **inclusive education**.
- Passionate about **service, mentorship, and community impact** through **education and inclusivity**.

### National Service Recognition

- Awarded **Best Soldier Of The Month (BSOM)** during National Service for exemplary conduct and leadership.

## Technologies and Languages

- **Languages:** JavaScript, Typescript, Python
- **Technologies & Frameworks:** Next.js, React, Node.js, Express, MongoDB, Firebase, MobX

- **Frontend:** HTML, CSS, Tailwind CSS, ShadCN UI
- **Cloud & DevOps:** AWS (EC2, S3), Vercel, Docker
- **Databases:** MongoDB, mySQL
- **Tools & APIs:** Puppeteer, FFmpeg, OpenAI API, D-ID API, Gemini API,  Stripe, NextAuth.js
- **Other:** Web Scraping, AI Video Automation, Full-Stack Development

## Interests

- I enjoy an active lifestyle — beyond track and field, I'm passionate about boxing and martial arts for both discipline and mental clarity.
- I have a deep curiosity for AI and automation, driven by its potential to boost efficiency not just in business, but in everyday life.
- I'm a go-getter who thrives in fast-paced environments and takes initiative to turn ideas into action.