Billy Lee

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EDUCATION

University of Waterloo

Honours Bachelor of Mathematics, Minor in Computer Science

Aug 2024

GPA: 3.9/4.0

EXPERIENCE

University of Waterloo

Waterloo, Canada

Lead Developer Jan 2024 - May 2024

- Developed a Next.js-based web platform for a figures of speech research group, enabling user submissions and annotations of figure instances.
- Revamped the CI/CD process using GitLab pipelines, Docker, and Docker Compose, automating and accelerating testing, building, and deployment phases, and saving over 30 minutes per deployment.
- Established a robust staging environment to streamline testing and quality assurance, ensuring a more reliable and efficient development workflow.
- Hosted weekly stand-up meetings, conducted code reviews for merge requests, and set up a documentation site with a CD pipeline to ensure proper project documentation.

Full Stack Developer Sept 2023 – Dec 2023

- Implemented advanced features including rich text support and dynamic highlighting functionality using Tiptap.
- Reduced page load time by 80% by consolidating data retrieval to a single API call with server-side props, utilizing Context API for efficient data distribution, and implementing pagination to minimize data overload.
- Engineered and deployed robust backend endpoints for the Golang-based REST API with MySQL database.
- Authored comprehensive tests using Jest and React Testing Library to ensure code integrity and functionality.

Hewlett Packard Enterprise

Hong Kong, China

Software Developer Intern

May 2023 - Aug 2023

- Developed and launched a React.js-based demo portal as the sole developer, effectively showcasing HPE GreenLake solutions and streamlining the demo process by at least 50%.
- Orchestrated the automation and optimization of demo processes, utilizing Python and Bash scripts, and managed VM environments to ensure efficient and effective demo execution, reducing setup time by approximately 80%.

Bolee Machine Tool Ltd.

Hong Kong, China

Software Developer Intern

Apr 2023 - May 2023

- Tackled the challenge of time-consuming manual product entries on the company's WordPress e-commerce site, previously reliant on a lengthy admin GUI process.
- Revolutionized product management by developing a Python-based automation tool using Selenium for the company's WordPress e-commerce site; achieved a 99% reduction in time required for bulk price updates.
- Managed the company's server system by configuring the VPN server and upgrading the storage of the NAS server.

Projects

UWPlan | Next.js, TailwindCSS, shadcn/ui, Auth.js, PostgreSQL, Drizzle ORM

Sept 2024 – Present

- Designed, engineered, and deployed a Next.js-powered degree planning webapp, serving 500+ daily users.
- Implemented a drag-and-drop interface using dnd kit, allow for easy course planning and scheduling.
- Integrated secure authentication using Auth.js with Google and GitHub OAuth providers.
- Implemented efficient data persistence using PostgreSQL with Drizzle ORM to manage student schedules.

TECHNICAL SKILLS

Languages: TypeScript, Python, C++, Go, Bash, SQL, HTML/CSS

Technologies/Frameworks: React, Next.js, Node.js, PostgreSQL, MongoDB, TailwindCSS, Docker, Git, Linux/Unix