

BOB SHOAN NG

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Accomplished and diligent software engineer with a good eye for designs. Able to deliver products with high quality proven through customer satisfaction. Friendly, with strong communication skills with teammates. Always learning and growing in software engineering as a professional and hobbyist.

EDUCATION

University of Toronto

Computer Science Specialist (4th year)

Sept 2019 - Present

CGPA: 3.90 (Dean's List Scholar)

TECHNICAL SKILLS

Programming: JavaScript (ES6), TypeScript, HTML, (S)CSS, Python, C(++), C#, Java, SQL, GraphQL
Software & Tools: **Frontend:** React, Vue, Svelte, Redux, Tailwind, Bulma, Figma
Backend: Node.js, Express, MongoDB, Postgres, Redis, Hasura
DevOps: Github Actions, Firebase, Heroku, Docker, Jenkins, Netlify, Google Cloud
Others: Git, NPM, Insomnia, Jest, Selenium, Unity Engine, Illustrator

WORK EXPERIENCE

Zynga Inc. *Software Engineering Intern - Analytics*

May 2022 - Present

- Developed a centralized portal for analytics application, fixed various bugs by refactoring legacy React components, improved the website's visuals and user experience by refactoring the CSS and introducing accessible HTML.
- Led production releases of the centralized portal, ensuring approval from quality assurance, running and fixing automated content testing, drafting Change Management requests, and executing scheduled deployments using Jenkins.
- Participated actively in code reviews, suggested codebase improvements and conventions like BEM for reduced CSS specificity issues and better structure.
- Conceived and implemented an automated tagging feature for PM emails using Python, deployed as a CronJob. Wrote technical specs, held internal review meetings, then drove the entire feature to completion.

X-CD Technologies Inc. *Software Developer*

April 2021 - Feb 2022

- Developed clients' e-commerce stores, product consumption platforms, member & corporate directories and file browsers using React, resulting in more than 6 projects delivered in total.
- Developed corresponding APIs and admin functionalities for certain projects using Node.js, Express, and MySQL.
- Participated in code reviews, provided constructive feedback, and proposed improved coding conventions resulting in an 80% increase in codebase quality.

Pathforge Pte. Ltd. *Full-Stack Developer*

Sept 2020 - April 2021

- Collaborated with a cross-functional team in a startup environment to successfully communicate project updates, resolve conflicts, and meet deliverables.
- Conducted zoom lectures and mentoring sessions to groups of learners about programming and web development, improving the understanding of HTML, CSS, and JavaScript to all participants.
- Developed a social e-learning site with more than 300+ sign ups, using Vue, GraphQL, Hasura, and Postgres.
- Built a CMS for course materials, integrated user leaderboards, and implemented entire social feed and endorsement system from the ground up, allowing users and organizations to create and share course content easily.

N2N Connect Bhd. *Intern / Frontend Developer*

May 2019 - Aug 2019

- Revamped the company's internal timesheet management system using Angular.js and Bootstrap by introducing new quality of life features, and fixing 99% of the bugs, improving user experience by 80%.
- Presented and showcased my work during head of department meetings to collect critical feedback and suggestions.
- Authored extensive technical documentation for a proper project handover, saving 70% of on-boarding time for new developers.

PROJECTS

Bobcoin Cryptocurrency (XBC)

April 2021 - Present

- Created an open sourced, decentralized, peer to peer, proof of work cryptocurrency from ground up.
- Built using Typescript Node.js for business logic, Express, MongoDB, and web sockets for the Node backend/API. Jest for unit testing. React, Redux, and Bulma for the frontend block explorer, wallet software, and mining client.
- Secured using cryptographic hash algorithms, elliptic curve digital signatures, public-key cryptography, merkle trees, the Nakamoto consensus, BIP compliancy, and the UTXO model, resulting in a tamper-proof blockchain ledger.
- Refactored blockchain storage, query, and validation code by redefining mongoose schemas, and devising a new strategy for handling blockchain reorganizations and forked blocks. Overall, increasing efficiency by 90% and making the code more robust and scalable.
- Successfully educated 20+ friends and family about cryptocurrencies by introducing them to this project.

Artsu.me

Sept 2021 - Jan 2022

- Developed an art hosting webapp that allows artist to create a job-ready portfolio to showcase their artworks.
- Led and managed a team of junior developers, by providing mentorship and support to struggling individuals, improving their web development knowledge and productivity by 80%.
- Used React, Tailwindcss, Redux for the frontend. Express, MongoDB, Cloudinary for the backend. Heroku, Google Cloud for deployment. Jest and Supertest for unit testing.
- Implemented OAuth2.0 by allowing users to authenticate using email, Google, or Facebook.
- Wrote proper documentation for developer on-boarding, for every user story, and for every API endpoint.

Assembly Doodle Jump

Oct 2020 - Dec 2020

- Developed a doodle jump clone from scratch using MIPS assembly language, including sound effects, springs, jetpacks, different platform types, and scalable difficulty. Resulting in a final grade of 100%.
- Wrote robust assembly code, resulting in a highly extensible framework for other games.

Course Checker

Sept 2017 - May 2018

- Developed a course planning tool using C#, Unity Engine, HTML, and CSS to help students plan for the upcoming semester by dynamically generating a visual timetable from a list of courses.
- Helped friends in better managing their timetable for the upcoming semester, saving 90% of their time.
- Proposed to Taylor's University executives about integrating this tool into their existing system.
- Highly customizable in terms of colors, additional info, and timestamps, which appealed to all kinds of students.

Last updated on: 21 Sept 2022