

# Ng Guoyou

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**KEYWORDS** Work experience with TypeScript, Rust, Python, JavaScript, Node.js, Ruby, HTML, CSS, Docker, React, Redux, Webpack, Photoshop, Illustrator, Agile

**EDUCATION** Bachelor of Computing (Communications & Media) Hons.  
National University of Singapore, 2011–2015

**EXPERIENCE** **BASIS AI (BASIS TECHNOLOGIES PTE. LTD.)**  
**Software Engineer**, Singapore, 2019–Current  
*2019–Now. TypeScript, Python, Rust, React, Redux, Docker, Kubernetes*  
Employee #3 and engineer on Bedrock, a machine-learning platform for training and deployment. Implemented frontend in React and Redux with directed-graph visualisations. Created workload monitor in async Rust. Worked on Python API server. Implemented Docker image caching for fast workloads using [kaniko](#). Implemented company website <https://basis-ai.com/> in Next.js. Set up agile environment and processes.

## **GOVTECH (GOVERNMENT TECHNOLOGY AGENCY)**

**Software Engineer**, Singapore, 2016–2019  
*GoBusiness Licensing guided journey, government licenses portal*  
*2019. TypeScript, React, Redux, Kotlin, Spring Boot*  
Part of initial team. Bootstrapped project and implemented features for F&B licensing.

*<https://www.mycareersfuture.sg>, job portal*  
*2018. Node, TypeScript, JavaScript, React, Redux*  
Implemented frontend features for MyCareersFuture. Initiated the move to TypeScript.

*<https://opencerts.io>, academic qualification verifier*  
*2018. Ethereum, Parity, Solidity, JavaScript, TypeScript, React, Redux*  
Wrote and deployed simple smart contracts for certificate registration on Ethereum. Created tools to interact with these smart contracts in Node, TypeScript and React.

*Data ingestion validator, API endpoint, and data visualisation application*  
*2017. Rust, Python, Flask, JavaScript, React, Redux*  
Optimised data ingestion time by 50× over pre-existing implementation using PyPI and then Rust. Developed front-end application from scratch with IE11 support.

*<https://www.businessgrants.gov.sg>, grant application and tracking portal*  
*2016. Ruby on Rails, React, Redux*  
Implemented features for and fixed bugs on forms with complex validation logic. Introduced, implemented CI-enforced linting for Ruby and JavaScript on existing code.

**PERSONAL** Singapore citizen. Native English and Mandarin Chinese speaker.

- Toy audio synthesizer library in Rust with MIDI support and WebAssembly interface
- Parallel raytracer with basic animations in Rust
- Retro image filtering application in React and Redux
- Browser extension for organising downloads with  $\approx 3000$  users
- Sharing sessions and presentations from work