DICKSON TAN

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SKILLS

- Languages: JavaScript, TypeScript, Python, Rust
- Technologies: node.js, Serverless (AWS Lambda), React, Docker
- Others: API design, relational databases, unit, integration & E2E testing, web accessibility, ontological coaching

EXPERIENCE

Software Engineer, GovTech Singapore   **Apr 2021 – present**

Associate Software Engineer, GovTech Singapore   **Aug 2018 – Apr 2021**

GovWallet (Oct 2021 – present)

GovWallet is a reusable system for government agencies to disburse payouts to citizens.

- Technologies: TypeScript, Node.js, AWS (DynamoDB, Lambda, SQS), Python
- Added support for disbursing payouts that have an expiry date. This removes the need to manually reclaim unused funds when various government schemes expire, a key requirement for agencies
- Reduced time needed to run tests on the pipeline from 15 to 3 minutes. This was done by working around a memory leak
- Improved various ops processes by automation, saving an estimated 1 hour per sprint

MyCareersFuture (Aug 2018 – Sep 2021)

MyCareersFuture (MCF) is a job portal that matches jobseekers and employers through skill matching.

- Technologies: Node.js, MySQL, React, Cypress, GraphQL, CouchDB, Docker, AWS
- Design, build, and maintain microservices for managing jobseeker data and integration with third party service providers
- Led a year long effort to decouple MCF from a legacy system resulting in 3% more uptime and 10% less code in the backend. This code was used to keep data in sync with the legacy system bidirectionally in real-time. This limited MCF's uptime and has been the cause of data corruption issues
- Led design of new APIs for third parties that MCF integrates with, so API consumers pull data instead of data being pushed to each new third party. This means that work only needs to be done once to build the APIss with minimal effort to onboard new API consumers
- Reduce cycle time by 50% allowing for more frequent deployments. This was done by advocating for greater ownership of the end-to-end tests in the pipeline among developers. This increased the frequency of green builds deployable to production from once per fortnight to multiple times a week
- Provide level 3 support on a rotational basis to diagnose and fix bugs in production

PROJECTS

- Added support for keyboard navigation to the JSON viewer in Mozilla Firefox, released in version 76
- Created Beets-audible, a plugin that adds support for audiobook management to Beets. Beets is an open-source music organizer with over 10000 stars on Github

EDUCATION

National University of Singapore, BComp. Computer Science, Honors (Highest Distinction)   **2015 – 2018**

- GPA 4.55/5.0

INTERESTS

- Coffee
- Reading science fiction and fantasy