

Michael Toohig

Chambersburg, PA, US | 717-504-3110 | michaeltoohig.com | hello@michaeltoohig.com | github.com/michaeltoohig

PROFESSIONAL SUMMARY

US Citizen with near-decade of experience working from whiteboard to deployment. Recently returned to the United States from the South Pacific where I had my own software development company and where my work experience is based. Now with my family in the States I am seeking senior software engineering position.

WORK HISTORY

- Independent Contractor** | *Self-Start Company in Port Vila, Vanuatu* Oct '23 – Present
- Per Work Experience section below, I identified clients and created software solutions for their businesses.
 - Created new customer services, internal tools and led initiatives to scale information systems, leading to improved business efficiencies and customer satisfaction for my clients.
- Mixed Roles - Software Development Contracting & IT Manager** | *Telsat Broadband* Mar '18 – Mar '24
- Per Work Experience section below, I developed software solutions for other local businesses on a contract basis.
 - Expanded Telsat business offerings with Over-The-Top (OTT) services to existing infrastructure.
 - Developed an API gateway for the subscription management system, preventing vendor lock-in.
 - Delegated jobs to technicians and managed NOC and legacy systems, including FreeNAS and Proxmox servers.
- Volunteer** | *Peace Corps* Jan '14 – Dec '17
- Migrated PDF & Excel data to databases for the Vanuatu Ministry of Health and Vanuatu National Museum.
 - Provided training and support for the use of the Ministry of Education & Training's education management system.

WORK EXPERIENCE

- Offline-First Progressive Web App (PWA)** | *Vue.js, Typescript, IndexedDB, Workbox* Jul '23 – Jan '24
PWA for delivery drivers in remote places
- Created a modern offline-first frontend with Vue.js, Workbox and IndexedDB for delivery drivers.
- Scraping Realtors' Listings & Map** | *Leaflet, Scrapy, Playwright, Directus CMS* Mar '23 – Sep '23
Web scraper collecting local realtor listings for a GIS application.
- Utilized Scrapy and Playwright to periodically gather data from multiple targets.
 - Wrote Leaflet and TailwindCSS based application for discovering multiple realtor listings on a single map.
- Container Tracker** | *Directus CMS, Vue.js, Typescript, Docker, Ansible* Jul '23 – Present
Fleet management system for a local inter-island shipping company.
- Built custom Directus extensions to provide an interface for data entry staff that enforced business logic.
 - Thoughtfully designed for expansion to new business areas beyond just fleet management.
- Sabdivisen.com** | *Directus CMS, PWA, Typescript, Tailwindcss, Leaflet, Docker* Feb '23 – Jun '23
Aggregated public data for subdivision sales in Vanuatu.
- Directus CMS backend database with public facing Vue.js and Typescript PWA frontend.
 - Light-weight and modern design for poor network conditions.
- API Gateway for Subscriber Management System** | *Flask, SQLAlchemy, Click, Pytest* May '22 – Jul '22
API Gateway to mitigate vendor lock-in.
- Reverse engineered competing product's API and authorization processes.
 - Wrote an API gateway to integrate competing vendor's product with the existing subscriber management system.
- 1Nomo** | *Streaming, Transcoding, OBS, Nginx, Flask, Celery, SQLAlchemy* Jan '19 – Aug '20
Platform for operating a linear TV station.
- Automated the process for constructing incremental playlists following user-defined playlist templates.
 - Took initiative on expanding the station's live segments by including automated segments for local weather, playlist look-ahead, local COVID-19 updates and more written as Vue.js animated video overlays.
 - Developed internal tools for the content library, such as transcoding pipelines, metadata sync with public databases and an administrative web portal built with Flask for video content curators.
 - Added support for streaming in parallel to multiple destinations using ffmpeg, STunnel and Nginx.
- Post-STB & NOC Monitoring Systems** | *RaspberryPi, ffmpeg, Python* Oct '20 – Feb '21
Aggregated service and environment monitoring systems.
- Improved time to identify service disruptions by automating live broadcast monitoring.
 - Reduced service disruptions and mitigated equipment damage by automated NOC monitoring.
- Rogue Software** | *FastAPI, Celery, Ansible, AWS, Vue.js* Sep '20 – Sep '21
SaaS platform for tour & accommodation bookings.
- Developed a multi-tenant platform with FastAPI and PostgreSQL.
 - Automated provisioning of AWS services and deployment with Ansible.
 - Integrated local bank's payment gateway into the customer checkout process.

SIDE PROJECTS

- Unofficial Vanuatu Meteorology API** | *FastAPI, BeautifulSoup, Scraping* Mar '23 – Apr '23
- An API for the Vanuatu Meteorology & Geo-hazards Department made with FastAPI and periodic data scraping.
- Vanuatu Energy Dashboard** | *Python, Dash, Computer Vision, OCR, OpenCV, BeautifulSoup* Oct '22 – Jan '23
- Dash app for exploring Vanuatu's electricity costs, fuel consumption and renewable performance from public data.
- Bilolok** | *FastAPI, Typescript, Vue.js, Docker, Ansible, Offline-First PWA* Feb '19 – Nov '21
- Foursquare for kava bars; a full-stack app written with Vue.js, Python and other dockerized services.
- Vanuatu Vehicles** | *ML, FastAPI, Flask, Vue.js, Docker, Ansible, PWA* May '18 – Feb '19
- Yelp for public transport; database gathered via dashcam with custom ANPR pipeline and PWA app for browsing.

EDUCATION

The Pennsylvania State University | *University Park, PA, USA* | Major GPA 3.7/4.0 Aug '09 – Dec '13
Dual Majors: in B.Sc. in Security & Risk Analysis and B.Sc. in Information Sciences & Technology