Anh Nguyen

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EDUCATION

Bachelor of Science (Computer Science) │ University of New South Wales │ 83.7 WAM   2022 - 2024

EXPERIENCE

Casual Academic │ University of New South Wales   Sep 2023 - Present
- Tutored 60+ students per week in COMP2511 The Art of Software Design (Object Oriented Design & Programming) and COMP3121 Algorithms and Programming Techniques
- Incorporated JUnit, Gradle, and core Java features/frameworks, e.g. OOP, inheritance, collections, exceptions, packages, concurrency, and generics, to teach design principles/patterns/smells and refactoring techniques
- Taught problem solving paradigms (Divide and Conquer, Greedy Algorithms, Flow Networks, Dynamic Programming) and Big-O time complexity analysis for designing, justifying, and analysing algorithms
- Proposed improvements to assignment specifications document; implemented and distributed changes to 500+ students via Git and Gitlab
- Facilitated group communication and collaboration among students in tutorials and laboratory sessions
- Demonstrated effective teaching with an overall student rating of 5.6/6 over faculty average of 5.3/6 on a 6 point Likert scale

Report Writer, Editor and Draftsman │ QOVES   May 2020 - Feb 2021
- Wrote 60+ page-long aesthetic medicine consulting reports commissioned by 40+ clients; halved turnaround time by setting up template
- Created 5-15 cephalometric diagrams and 1-2 facial morphs per report with self-learnt Bluebeam Revu and Adobe Photoshop
- Edited reports of less experienced team members, and delivered team training on constructing cephalometric diagrams and facial morphs

PROJECTS

Portfolio │ Javascript, HTML, CSS │ React.js, Tailwind CSS, npm, Vite, Github Actions   4nhus.github.io/portfolio | github.com/4nhus/portfolio
- Produced a single page web application with responsive layouts and interactivity to serve as a portfolio
- Constructed React components to compose UI; applied styling and interactions to components with Tailwind CSS
- Handled routes with React Router to enable navigation between pages without reloading site
- Managed package dependencies with npm; built project with Vite before it was deployed via Github Actions

Account Service │ Java, SQL │ Spring Boot, Spring Data, Spring Security, JUnit, Gradle   github.com/4nhus/accounting-service
- Leveraged Spring Boot to establish a backend for an account service offering user management, payroll processing, and security monitoring; built and tested server using Gradle and JUnit/Mockito respectively
- Implemented RESTful APIs using Spring Boot Web, and reduced boilerplate code with Project Lombok
- Configured authentication and authorisation through Spring Security, and added event logging to monitor system security
- Applied Spring Validation and Jackson to ensure integrity of data models, then encode data models as JSON

Journey Genie │ Swift, Python │ SwiftUI, MapKit, Flask   github.com/4nhus/journey-genie
- Utilised OpenAI API and Visual Crossing Weather API on Flask server to generate itineraries adjusted for real-time weather
- Collaborated within a team of 4 to ideate and prototype project concept, and to develop backend; coordinated pitch generation
- Created a native iOS application to interact with backend, and composed UI with SwiftUI and MapKit

Eye Empathise │ Swift │ SwiftUI, AVFoundation, CoreImage   github.com/4nhus/eye-empathise
- Devised a native iOS application to simulate visual impairments, through camera filters and guided exercises, to foster empathy of visual disabilities; translated domain knowledge into actionable copy on accessibility for visual disabilities
- Designed 10+ screens with modular views and view modifiers in SwiftUI; ensured accessible user interactions with Apple's Accessibility API
- Leveraged AVFoundation and CoreImage frameworks to manipulate image data from a live camera feed and generated assets, for simulation of conditions such as glaucoma, colour blindness

TECHNICAL SKILLS

Languages	Swift, Java, Javascript, HTML, CSS, SQL, C++
Frameworks and libraries	SwiftUI, SwiftData, Spring Boot, Spring Data, Spring Security, JUnit, React.js, Tailwind CSS
Development tools	IntelliJ IDEA, Xcode, Webstorm, Git, Github, npm, Gradle, Confluence, Figma

EXTRACURRICULAR

- 2024   L'Oréal Brandstorm Competition, Unihack Hackathon, Swift Student Challenge Winner
- 2023   UNSW ICPC Event Coordinator
- 2022   Student Experience Subcommittee CSESoc UNSW
- 2017   Salvation Army Donation Drive, Red Nose Day Donation Drive, Sir Roden and Lady Cutler Foundation Donation Drive