

Hieu Nguyen

✉ htnguyen1310@gmail.com ☎ (571) 226-6292 📍 Fairfax, VA 🌐 [linkedin.com/in/hieunguyen1310/](https://www.linkedin.com/in/hieunguyen1310/)
🔗 github.com/hieunguyen-design

Developer and designer dedicated to building better user experiences. Combining an **Interactive Design** background with a **Computer Science** degree, I specialize in **accessible, UI-focused engineering**—taking ideas from **wireframes** to fully functional, **cross-platform applications**.

📁 PROFESSIONAL EXPERIENCE

NAVAL RESEARCH LABORATORY (NRL)

09/2025 – Present | Fairfax, VA

Software Developer

- Architected a comprehensive data collection framework within the NRL's MCTF simulator, seamlessly binding a **Section 508-compliant** frontend UI dashboard to a robust **Python** backend.
- Defined custom data structures and schemas to efficiently capture complex human and AI gameplay events, serializing the multi-agent simulation data into **.npz** files.
- Engineered an interactive data validation system that enables users to visually audit gameplay via playback, ensuring high-quality datasets for training behavioral **Machine Learning** models.

📁 PROJECTS

Yahtzee PVP (Android Game Engine)

2025

Java, Firebase, JUnit

- Built a multiplayer game engine in **Java**, implementing **MVVM architecture** to separate UI from business logic for improved maintainability.
- Utilized Firebase for real-time data synchronization and turn-based logic, handling complex state management for multiplayer sessions.
- Conducted rigorous **Quality Assurance (QA)** and **Unit Testing** to verify game rules, successfully debugging logic errors and ensuring application stability prior to release.

Dressify App – Cross-platform Fashion App

2025

Flutter, Firebase, SQL, Git/GitHub, AWS (EC2, S3 – prototype testing)

- Designed and developed a **cloud-native, cross-platform mobile application** with Firebase integration for secure authentication and real-time outfit data.
- Configured CI/CD workflows with GitHub Actions.
- Achieved **95%+ crash-free sessions** with emphasis on security and performance.

One Task (Task Management Application)

2025

JavaScript, Local Storage

- Engineered a modular application using Vanilla JavaScript and Webpack, implementing a custom event-driven architecture to manage state without external libraries.
- Implemented Local Storage API integration for persistent data management, ensuring zero-latency updates and reliable data retrieval.

Tic Tac Toe (Browser Game)

2025

JavaScript, Factory Pattern

- Engineered a modular game engine using **Factory Design Patterns** and IIFE to enforce strict data encapsulation, preventing global state pollution and ensuring code security.
- Decoupled game logic from UI rendering to demonstrate clean, maintainable software design principles.

🧠 SKILLS

Programming Languages

Java, Python, JavaScript (ES6+), C/C++, Kotlin, SQL, HTML/CSS, Groovy

Cloud & DevOps

AWS (EC2, S3, IAM, Lambda), CI/CD (GitHub Actions), Linux/Unix Shell, Git, Firebase.

Databases

PostgreSQL, MySQL, SQLite, Firebase Realtime Database

Testing & QA

Unit Testing (JUnit), Debugging, System Testing, Issue Tracking, and Performance Optimization.

Frameworks

Flutter, React, Spring Boot, RESTful APIs, MVVM Architecture.

🎓 EDUCATION

GEORGE MASON UNIVERSITY

BS Computer Science, minor Software Engineering - GPA : 3.80
2026

Northern Virginia Community College

Associate of Applied Science in Graphic Design – Interactive Design
2022

Northern Virginia Community College

Associate of Science in Computer Science
2019