Hieu Pham

682-344-1550 | duchieu260503@gmail.com | LinkedIn | GitHub | Portfolio

EDUCATION

Texas Christian University   Fort Worth, TX
Bachelor of Science in Data Science, Minor in Mathematics | GPA: 3.9   *Jan. 2022 – Dec 2025*

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, SQL, HTML/CSS, Linux, C++, R
Tools & Frameworks: Spring Boot, Streamlit, Docker, Git, Pandas, NumPy, Scikit-learn, Matplotlib
Databases & Engineering: MySQL, PostgreSQL, MongoDB, Supabase (Postgres), ETL pipeline, Apache Airflow
Relevant Courseworks: Data Mining, Linux System Admin, Data Structures & Algorithms, Probability & Statistics

EXPERIENCE

Software Engineering Intern   May 2025 – Aug 2025
Viettel Customer Experience   *Remote*
- Built a Customer Relationship Management (CRM) platform that unified client and contract data across multiple business units — helping the company centralize operations and reduced coordination delays between teams.
- Designed an effective contract management module to distinguish between in-progress and done-deal contracts, reducing reporting inconsistencies and manual errors by ∼30% with validation rules and data synchronization.
- Enhanced the front-end interface with Thymeleaf HTML, Tailwind CSS, and JavaScript, which shortened task completion time by ∼20% and improved adoption across departments.

Software Engineer   Aug 2024 – May 2025
Trailspur   *Fort Worth, TX*
- Directed a team of 7 in building an automated real estate data pipeline that gathered information from public APIs and industrial data, reducing research time and providing executives with map-based investment insights.
- Implemented the map visualization in Python, deployed it on AWS Lambda, and stored outputs in Supabase (PostgreSQL), ensuring continuous updates - eliminating the need for costly ArcGIS products.
- Collaborated in a two-semester Agile project, meeting weekly to plan and execute sprints using Jira to maintain consistency and delivered all milestones on time through effective code reviews.

DSA & Math Teaching Assistant   Aug 2022 – Present
Texas Christian University   *Fort Worth, TX*
- Hosted mentoring sessions for 150+ students in Data Structures & Algorithms, conducting code reviews & debugging guidance that strengthened students' ability to design efficient algorithms in Java and Python.
- 200+ hours in grading and course support for Linear Algebra, Calculus, and Discrete Mathematics.

PROJECTS

Illness Forecasting Platform | *Link*   Spring 2025
- Built an influenza-like illness (ILI) trends forecast using CDC data, enabling public-health analysts to visualize seasonal patterns and make data-driven predictions with up to 96% model accuracy ($R^2 = 0.96$).
- Deployed the tool with Streamlit, enabling users to adjust inputs, view live predictions, and explore how different machine-learning models respond to historical ILI data.

Real-time Water Level Flood Detection | *Link*   Summer 2023
- Trained a custom YOLOv8n segmentation model on labeled datasets (Kaggle) to detect flooded areas in images and video frames — enabling automatic identification of water surfaces in real time.
- Developed logic for water level measurement, converting detected pixels into real-world height estimates (meter-to-pixel scaling) and integrating GUI output with live video overlays and saved annotated videos.

HONORS AWARDS & LEADERSHIP EXPERIENCE

President of Internal Affairs, Vietnamese Students Association (2022 – 2023) – Advocated for Vietnamese student voices, promoted cultural visibility, and supported incoming international students.
Undergraduate Research Funding, TCU CSE Symposium (2024) – Awarded competitive funding to present research among top student scholars.