Peter Nguyen

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EDUCATION

University of Massachusetts Amherst   Aug. 2020 – May 2024
Bachelor of Science (B.S) in Computer Science and Mathematics   *GPA: 3.83/4.00*
Dean's List Honors, Professor's Distinction, Recipient of Chancellor's Scholarship

EXPERIENCE

Undergraduate Research Assistant   May 2022 – Present
UMass Computer Vision Laboratory   *Amherst, MA*
- Researching 5DoF motion estimation of a handheld camera under Prof. Erik Learned-Miller. Surpass current state-of-the-art accuracy of motion estimation algorithms by 46% while being 125% faster
- Publishing a large-scale outdoor visual-inertial dataset with 30 annotated sequences. The first visual odometry (VO) dataset to test for small camera motion with many dynamic scenes

Software Engineer Intern   July 2022 – Sept. 2022
Amherst Intelligence Security   *Amherst, MA*
- Researched, built, and deployed 2 production-ready SaaS for anomaly detection in surveillance networks. Accelerated startup growth by 3 months and expected to expand business revenue by 15% by end of year
- Assisted the CTO in designing an end-to-end system architecture and deployment pipeline on *AWS*
- Reduced CPU runtime of main source code by 96% and created documentation for new and existing codebases. Eliminated performance bottlenecks and ensure maximum code reusability and efficiency

Co-Founder   July 2017 – Aug. 2021
Stella Agritech   *Ho Chi Minh, Vietnam*
- Developed an IoT irrigation controller using MQTT that enables real-time internet access. Lead to a new $5,500 contract to implement the autonomous irrigation systems for a client
- Programmed, maintained, and hosted a website with responsive and interactive UI using ASP.NET MVC, Microsoft SQL Server, and JavaScript. Displays real-time data of over 50+ devices with a 99% uptime
- Implemented machine learning models to predict soil moisture throughout the day to minimize evaporation and decrease daily water usage in small green spaces by 20%

LEADERSHIP AND EXTRACURRICULARS

Payload Software Engineer   Oct. 2021 – Sept. 2022
UMass-NASA Rocket Team   *Amherst, MA*
- Built the onboard flight inertial navigation system (INS) to continuously compute the launch vehicle's position in a GPS-denied environment with a 75 meter (250 ft) resolution
- Programmed a sensor fusion process in C++ to fuse signals in a homogeneous sensor network using a Kalman filter. Reduce sensor noise by 29%

President   July 2017 – Aug. 2019
ISHCMC Sustainability Group   *Ho Chi Minh, Vietnam*
- Planned with sustainability experts to manage the school's sustainability program with a team of 104 members
- Nominated as *"Best Sustainable Business Initiative in Vietnam"* in 2019 by the European Chambers of Commerce

TECHNICAL SKILLS

Languages: Python, C/C++, C#, Java, SQL, Javascript, Dart, HTML, CSS
Technologies and Frameworks: AWS, PyTorch, Tensorflow, Azure, Linux (Ubuntu), Firebase, Git, .Net, Flutter
Soft Skills: Clear Communication, Multitasking, Flexible, Teamwork, Initiative, Creative, Analytical
Certification: Microsoft Certified: Azure Fundamentals (AZ-900), MIT MicroMasters Graduate Course (6.86x)

INTERESTS

Self-driving cars, Finance, Gardening, Rockets, Tinkering, Cooking, Eating different ethnic cuisines