NAPASSORN LERDSUDWICHAI

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EDUCATION

Boston University, College of Engineering   **Boston, MA**
Bachelor of Science, Biomedical Engineering & Computer Engineering   May 2018
GPA: 3.95/4.00, Summa Cum Laude

PROFESSIONAL EXPERIENCE

Hitachi Vantara LLC   **Waltham, MA**
Software Development Engineer   Aug 2019 – Present
- Develop file-sync-and-share software and data sharing services for hybrid cloud storage provider with a team of cross-functional engineers.
- Architect and build new file access capability by integrating the Microsoft online file editing and co-authoring service using WOPI REST APIs, Java, and AngularJS.
- Implement Linux-based data sharing service using FUSE, C++, C, SQLite, REST APIs, and gRPC.
- Resolve software web application issues with Java, PostgreSQL, Python, and Struts 2 and fix Windows, Mac OS, and Linux desktop applications bugs using C++ and Objective C.
- Deliver technical and software maintenance support for sustaining engineering team.

Software Engineer in Test   Jun 2018 – Aug 2019
- Streamlined software qualification via writing and deploying automation tests with Java, JUnit, and Grinder Automated Test Framework.

Boston University, Computational Imaging System Lab   **Boston, MA**
Research Assistant   May 2017 – Dec 2017
- Designed MATLAB graphical user interface for graduate research in computational microscopy.
- Translated mathematical image inspection, image manipulation, and 3D reconstruction algorithms – such as Fourier transform, differential phase contrast, digital refocusing, and 2D deconvolution – into MATLAB code to augment nanoparticle visualization and quantification.

The Partnership in Global Health Technologies   **Boston, MA & Zanzibar, Tanzania**
Research Assistant   Aug 2015 – Apr 2017
- Prototyped rapid paper-based device for physicians in Zanzibar monitor liver function in severely pre-eclamptic pregnant patients.
- Researched, tested, and evaluated device electrochemical assay for measuring liver function biomarker, ALT, in blood plasma with a team of undergraduate students.
- Collaborated with medical students at the State of University of Zanzibar to conduct interviews with healthcare workers and pregnant patients to gain insight into device usability.

PROJECT EXPERIENCE

Boston University, College of Engineering & School of Medicine   **Boston, MA**
Larnx: Stereoscopic Video Processing Software for Dysphagia   Sept 2017 – Apr 2018
- Created software application for diagnosing and monitoring dysphagia (swallowing difficulties) with a team of two computer engineering students.
- Implemented software to detect, track, and estimate food residue volume and surface area from endoscopic throat videos by integrating computer vision and color-based segmentation models from OpenCV libraries.
- Produced desktop application prototype using C++, JavaScript, HTML, and CSS.

TECHNICAL SKILLS
Languages: Java, C++, C, SQL, Python, Objective C, JavaScript, HTML/CSS, MATLAB
Operating Systems: Linux, Windows Desktop, Windows Server, Mac OS
Systems & Infrastructure: Hybrid Cloud Storage, High Availability
Databases: PostgreSQL, SQLite
Frameworks: REST APIs, Apache Tomcat and Maven, gRPC, FUSE (File system in user space), AngularJS, Apache Struts 2, JUnit, Grinder Automated Test Framework, OpenCV
Services: Microsoft Office online, Active Directory

RELEVANT COURSEWORK
Applied Algorithms for Engineers, Computer Organization, Discrete Mathematics for Engineers, Introduction to Probability, Introduction to Computer Networking, Introduction to Software Engineering, Software Design, Client-Server Software Systems Design, Applications in Bioinformatics, Introduction to Logic Design, Digital Signal Processing, Calculus, Multivariate Calculus, Introduction to Linear Algebra for Engineers

PRESENTATIONS
Howard, C. & Lerdsudwichai, N. & Subacius, K. (2018, April). Larnx: Stereoscopic Video Processing for Dysphagia. Presented at 2018 Electrical & Computer Engineering Senior Design Day, Boston, MA.

Lerdsudwichai, N. (2017, October). Graphical User Interface Development for Computational Microscopy. Poster session presented at Boston University's 2017 Undergraduate Research Symposium, Boston, MA.

Lerdsudwichai, N. & Lindsay, H. & Nadkarni, D. & Rashid, S. (2017, March). HepaQuick: A Low-Cost Point-of-Care Liver Function Test. Poster session presented at 2017 Rice 360° Global Health Design Competition, Houston, TX.

HONORS & AWARDS
Hitachi Vantara Hats Off Award, 2020
In recognition for going above & beyond to deliver co-authoring in Microsoft Office for the web. At the same time, contributing to resolving customer issues and bug fixes during hardening sprints.

Hitachi Vantara Night of the Town Awards, 2019
In recognition of getting Active Directory systems back up so automation testing could continue seamlessly over the summer. (October)
In recognition of quickly jumping to help another feature team complete their automation development. (February)

Undergraduate Research Opportunity Program, 2017
Granted stipend to conduct research at Boston University's Computational Imaging Lab.

Summer Term Alumni Research Scholars Program, 2016
Granted housing stipend to conduct research at Boston University's Global Health Technologies Lab.

National Biomedical Engineering Honor Society, 2016
In recognition of outstanding academic achievement and commitment to Biomedical engineering.