

EMPLOYMENT

Innovation Co-Op

HCSC: Blue Cross Blue Shield of Illinois

Jan 2018 – Aug 2018

- Director of shark tank innovation challenge. Shipped 8 Software MVP products. Managed 8 teams of 6 interns/team through product strategy and development, led market segment identification, defined software MVP requirements, and taught Design Thinking methodology. 1st place product put into enterprise product development, 2nd place product put into pilot.
- Mobilized and led clinical strategy team to evaluate integration of new non opioid post-operative pain management treatment into HCSC medical coverage policy. Proposal pipelined by CMO to medical policy board of physicians for evaluation.
- Implemented sensor network enabled chat bot prototype pilot with Node.JS on RaspberryPI using IBM IOT cloud platform.
- Developed in-network provider finder full stack web application product pilot with Node.JS, HTML, CSS, and Java.
- Augmented incubator and accelerator startup partnership initiatives through user testing and MVP software development
- Developed MVP prototypes and business integration plans for emerging technologies: Blockchain, ML, VR
- Designed data visualizations with PowerBI, Tableau, Python data parsing scripts and Microsoft Access for internal employee data.

Software Engineer Co-Op

SIEMENS Healthineers

May 2017 – Dec 2017

- Redesigned C code for CT/PET/SPECT server boot up application to switch from PowerPC to x86 architecture. Reformatted subsystem initialization sequence functions for photon emission data collection and detector collimator tuning/calibration. Implemented functionality of I2C command transmission to FPGA array on detector board with TCP IP protocol on boot up.
- Revamped C# .NET windows GUI CT/PET/SPECT interface tool for testing and machine calibration. Added command handshake protocol, XML command parsing, delimiter packet functionality, and hardware dependent command validity selection features.
- Assisted in implementing custom user set movement calibration features on CT/PET/SPECT machines. Wrote C code for movement related subsystems and C++ unit tests for functional verification.
- Developed upgrades to file path tracing C# .NET windows GUI tool to match design requirement ID's with relevant design documents, unit test code files, and production code files to export subsystem development cycle traceability matrix into excel.

Founding Associate

Zyno Medical

June 2012 – Present

- Advised on long-term multi-year product strategy forecasting and business growth plan modeling and execution.
- Designed ambulatory and large volume infusion pump prototypes with reports on hardware/software enhancements.
- Developed Java GUI automated infusion testing tool and refactored C software for ambulatory infusion pumps.
- Created company website: <http://www.nimbuspump.com/>, 3D animated patient training videos, and marketing portfolio.
- Delivered product training to outpatient nurses and offsite services for company product portfolio of infusion pumps and IV sets.
- Tested large volume and ambulatory infusion pumps for 510k qualifications on QA, performance, safety and functionality.

User Experience Intern

Verizon Labs

April 2015 – June 2015

- Collected feedback for software UI on mobile devices for usability metrics through primary research onsite interviews with users.
- Created data visualizations and performed online survey data acquisition of A/B testing on usability for software products.
- Developed product testing strategy for future software design and user research of new prototypes.

EDUCATION

Champaign, IL

University of Illinois at Urbana–Champaign

Fall 2015 – Spring 2019

- Bachelor of Science in Computer Engineering

GPA: 3.3/4.0

Coursework: Applied GPU Parallel Programming, Databases, Data Structures, Computer Systems and Programming, Analog Signal Processing, Applied Machine Learning, Probability & Statistics for Computer Science, Startups: Inc/Fund/Contracts/IP

Organizations: Engineering City Scholars – Pilot Cohort, IEEE, ACM, HKN

PROJECTS

Linux OS (2018)

Created Linux OS in a team of 4 developers.

x86, C

AvalonAAV Travel Website (2018)

Full stack travel website with database functionality.

PHP, CSS, MySQL, cPanel

Brick Breaker (2017)

Imitation of Brick Breaker game on Altera DE2-115 FPGA.

System Verilog, C, Python

Self-Driving Minicar (2016)

Sensor enabled car capable of navigating obstacle courses

Arduino, C

RELEVANT SKILLS AND KNOWLEDGE

Operational

Project Management, Product Strategy, Leadership, Task Delegation

Product

Agile, Design Thinking, Rapid Prototyping, TDD, SCRUM, CICD, Software Development, BI

Programming Languages

Java, C#, C++, C, x86, CUDA, Node.JS, HTML, CSS, PHP, SQL, Python, System Verilog, R, XML

Technical Tools

Git, GDB, JIRA, MySQL, .NET, Spring, phpMyAdmin, Azure, IBM Cloud, PowerBI, Tableau, AWS, Maven

Emerging Technology

Blockchain, Machine Learning, Virtual Reality

Hobbies

Option Derivatives Trading, Equities Trading, Technical Analysis, Asset Arbitrage, Investing