




AlanLee9715@gmail.com  
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# ALAN LEE

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## EDUCATION

### University of Illinois at Urbana-Champaign

Fall 2015 – Spring 2019

- **Major:** Bachelor of Science in Computer Engineering (GPA: 3.2/4.0)
- **Coursework:** Algorithms, Data Structures, Operating Systems, Databases, Applied Machine Learning, GPU Parallel Programming, Computer Architecture, Probability & Statistics for Computer Science, Signal Processing

## EMPLOYMENT

### Software Engineer

IBM

Aug 2019 - Present

- Implemented sensor network chatbot prototype with Node.JS on RaspberryPI using IBM IOT cloud platform.
- Designed CICD pipelines for Java Spring web applications on Kubernetes, Docker for rapid cloud deployment.
- Refactored Node.JS, MongoDB web traffic analytics app to convert architecture to containerized microservices.

### Software Engineer | Founding Member

Zyno Medical

June 2012 – Present

- Developed and Managed collection of websites on design, development, performance metrics, and user growth: [zynomed.com](http://zynomed.com), [zynosolutions.com](http://zynosolutions.com), [infutronix.com](http://infutronix.com), [careeverywhere.com](http://careeverywhere.com), [nimbuspainpro.com](http://nimbuspainpro.com), [nimbusflex.com](http://nimbusflex.com).
- Architected and implemented serverless ecommerce web app with JavaScript, Stripe, and Foxy.io API's
- Built Java GUI automated device testing suite and refactored C embedded device firmware compatibility.

### Software Engineer Co-Op

Blue Cross Blue Shield: Illinois

Jan 2018 – Aug 2018

- Developed in-network provider finder web application with Java, Spring framework and JavaScript/HTML/CSS.
- Designed data dashboards with PowerBI, Tableau, and Python scripts for visualizing internal employee data.
- Director of shark tank challenge. Managed 50 direct reports in 6 teams through product development, and launch. 1<sup>st</sup> place winner put into enterprise product portfolio, 2<sup>nd</sup> place winner put into immediate pilot.

### Software Engineer Co-Op

SIEMENS Healthineers

May 2017 – Dec 2017

- Redesigned CT scanner boot up server to migrate to x86 architecture with TCP and I2C functionality in terminal.
- Implemented movement calibration features on CT machines in C for movement subsystems and C++ test suite.
- Built C# .NET windows GUI CT scanner interface tool for testing and machine calibration.
- Developed requirement traceability matrix tool in C# .NET to search and export file matches indexed on design ID's

### User Experience Intern

Verizon

April 2015 – June 2015

- Created data visualization dashboards and designed data pipelines for A/B testing on usability metrics for website.
- Collected and massaged user feedback data on software UI of mobile devices for usability metrics.
- Developed product testing strategy for future software design and user research of new prototypes.

## PROJECTS

### Stock Trading Bot (2020)

- Automated trading bot on technical indicators with text notifications and live data streams.
- Python, Google Cloud, Docker, Twilio, Alpaca

### Strategy Backtester (2020)

- Trading strategy historical backtesting platform
- Python, Backtrader

### Pressure Sensing Shoe (2019)

- Bluetooth pressure sensing insole custom PCB and android app with live pressure data streams.
- C++, Java, Android, Arduino, Eagle PCB CAD

### Linux OS (2018)

- Created Linux OS from scratch in a team of 4 developers with multithreading capability
- x86, C

### Travel Website (2018)

- Full stack travel website.
- PHP, HTML/CSS, MySQL

## RELEVANT SKILLS AND KNOWLEDGE

### Programming Languages

Python, Java, C#, C++, C, SQL, JavaScript, x86, PHP, Ruby, HTML, CSS, XML, System Verilog

### Technologies

AWS, Azure, GCP, IBM Cloud, Git, Docker, Kubernetes, Jenkins, Tekton, Argo CD, Maven  
PowerBI, Tableau, JIRA, TensorFlow, CUDA, Spring, Django, .NET