David S. Wang

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SKILLS & RELEVANT COURSEWORK

- **Programming Languages :** Python, C, C++, R, C#, Java, Dart, SQL
- **Libraries and Tools :** Docker, Kubernetes, Numpy, Pytorch, Scikitlearn, Pandas, Flutter, GatsbyJS
- **Relevant Coursework :** Computer vision, Database systems, Networking in the Linux kernel, Computational finance, Data analytics, Financial simulation, Adv AI/Machine learning for finance

WORK EXPERIENCE

Metasoma Technologies **Oct. 2019 – Present**
Software engineer *Las Vegas, NV*

- Lead developer of smart barbell fitness tracker, responsible for embedded hardware design and companion app design (written in flutter).
- Hardware and companion app allows for tracking of the barbell's path. Companion app offers suggestions on improvements to technique and form during lifts.
- Developed method for reliable sensor position(relative) calculation and 3D mapping of barbell's path.

BD (Becton Dickinson) **Sep. 2015 – Jul. 2016**
Embedded Software Intern *San Diego, CA*

- Worked on hardware/software upgrades for Alaris infusion modules, including integration of WiFi capacity,
- Designed and implemented testing automation software for the Alaris infusion modules using python Robot Framework.

Carefusion **Jun. 2015 – Sep. 2015**
Software Engineer Intern *San Diego, CA*

- Designed and implemented internal tool for project deadline estimation.
- Using past data the program tags then weighs keywords from project description. The resulting model was 87% accurate.

PERSONAL PROJECTS

wardrobeOS

- Android application for wardrobe organization and outfit recommendation.
- Suggestion algorithm takes into account of seasonal colors, daily weather, and overall color coordination.
- Barcode(UPC) functionality allows easy entry of newly purchased items.

Pokemon RPI

- Designed and created the classic Pokemon game in the settings of RPI campus. Implementation includes custom built battle engine.

Image Stitching (panoramic)

- Determines if set of images are of the same object/scene and creates a montage/panoramic via stitching.
- Extracts keypoints using SIFT and constructs K-D tree for KNN key point matching.
- Fundamental matrix estimation and homography estimation are use to determine alignment of images for proper stitching.

EDUCATION

Rensselaer Polytechnic Institute
M.S, Quantitative finance and risk analytics *Troy, NY*
B.S, Computer Science, Minor in Economics and Applied mathematics *Troy, NY*