### Lawrence Lee

#### **EXPERIENCE**

## SOFTWARE ENGINEERING INTERN Azure Networking, Microsoft

Sunnyvale, CA

May 2018 - August 2018

- Migrated C++/C network services to new communication standard of Protobuf messages over the gRPC framework to reduce CPU usage by 80% and memory usage by 20%.
- Designed and implemented networking benchmark to measure performance of new communication standards.
- Implemented a new proprietary message standard between networking services.
- Streamlined and containerized build pipeline for a networking application

# SOFTWARE DEVELOPMENT INTERN Autonomy Group, Sikorsky Aircraft Corporation Stratford, CT

June 2017 - August 2017

- Created several applications to analyze point cloud data with **PCL** (Point Cloud Library).
- Designed a benchmarking application to measure performance of geometric mesh generation methods.
- Developed a visualization module to create cross-sectional and top-down images of point clouds.
- Implemented usability improvements to existing point cloud data conversion and analytic tools.

## SOFTWARE DEVELOPER DATA Laboratory

University Park, PA

January 2017 - May 2017

- Utilized **JSoup** and **JDBC** Java libraries to implement program to process Amazon review data.
- Employed Apache Lucene and Tika libraries to filter tweets based on language and correct spelling errors within Tweet body.

#### SUBSYSTEM LEAD

#### Payload Subsystem, Lion Tech Rocket Labs

University Park, PA

September 2017 - May 2018

- Designed and developed an autonomous rover to deploy from a rocket after landing.
- Developed **C++** rover control software to and implemented obstacle avoidance as well as mission-critical logic.
- Designed and fabricated rover circuitry including **Arduino** micro-controller, various sensors, motors, servos, and ejection devices.

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#### **EDUCATION**

2016 – 2020 Penn State University

Schreyer Honors College

DEGREES PURSUED Computer Science

B.S. — M.S.

As of Spring 2018 3.86 Major GPA

3.65 CUMULATIVE GPA Senior Standing

#### PERSONAL PROJECTS

#### STACKOVERFLOW SEARCH

A **Java** utility to automatically search Google and Stack Overflow for exceptions thrown during run-time.

#### **GROUPME TRANSLATOR**

A GroupMe bot which corrects certain words sent inside a chat and re-sends a translated message

#### **NEARBY**

A social media platform to share crowd-sourced information about local events

#### TECHNICAL SKILLS

PROFICIENT IN C++, C, Java, Python, CMake,

Make, Linux Administration,

Docker, Git

FAMILIAR WITH C, Bash Scripting, SQL,

Apache Maven, Doxygen

#### MULTIMEDIA SKILLS

PROFICIENT Adobe Premiere, HTML, CSS

FAMILIAR WITH LATEX, Adobe After Effects,

Adobe Photoshop

#### COMMUNICATION SKILLS

ENGLISH Native speaker

CHINESE Oral (Mandarin): fair – Written:

basic

SPANISH Oral: basic - Written: basic