# Seth Brunwasser

sbrunwasser1998@gmail.com
(480) 276-2504
http://sethbrunwasser.github.io
Github.com/sethbrunwasser
LinkedIn.com/in/sethbrunwasser

## Education

**Arizona State University** — Expected May 2020
Bachelor of Science in Computer Science — *GPA: 3.4/4.0*
*Relevant Coursework: Intro to Machine Learning, Probability & Statistics, Applied Linear Algebra*
*Roger L. Von Amelunxen Scholar*

## Experience

**Intel** — **Chandler, AZ**
*Autonomous Driving Applications Intern · Autonomous Driving Group* — *May 2019 - Aug 2019*
- Used *Tensorflow* and *Caffe* to implement perception models on Intel Architecture for benchmarking
- Developed real-time applications for an autonomous software stack in *C++*
- Wrote *Bash* scripts to automate benchmarking of model performance

**Starbucks** — **Scottsdale, AZ**
*Data Science Intern · BI & Data Science Team* — *Aug 2018 - Dec 2018*
- Built an application with *Flask* and *PostgreSQL* to predict a customer's usual order
- Performed exploratory data analysis and model development in *Jupyter Notebook*
- Assisted with front-end development by integrating multiple API calls using *React.js*

**Ford Motor Company** — **Dearborn, MI**
*Research Intern · Autonomous Vehicles & Controls* — *May 2018 - Aug 2018*
- Developed robust signal handling in *C++* for ADAS Applications on an onboard ECU
- Created a Proof of Concept and submitted design disclosure for a new ADAS feature
- Built a tool in *Python* to help the simulation team parse corrupted data

**Avnet** — **Phoenix, AZ**
*Machine Learning Intern · Business Migration Team* — *May 2017 - Sept 2017*
- Used Levenshtein Distance and other string comparison functions in *Python* to find similarities in customer and part number data across multiple datasets to be used as features
- Built a predictive model using boosted decision trees to detect business migration with 98% accuracy
- Proposed said model which reduces the number of staff working on this task from 14 to 1, saving an estimated $500,000 in labor cost

## Projects

**PrivaCV** — *Python, OpenCV, SQLite*
A security application that turns off the computer display when an unauthorized user is in view
- Conducted semi-supervised learning using LBPH feature vector to dynamically update model with live face data
- Used *Flask* to stream detected faces to the browser for improved efficiency

**Twitter Stock Research** — *Python, NumPy, Pandas*
Research to determine if sentiment analysis on social media is a viable trading strategy
- Used Twitter API to query publicly traded companies for sentiment analysis on tweets
- Performed Pearson Correlation on tweet sentiment with change in stock price

**Amazon Alexa Mortal Kombat** — *Python, Flask, AWS*
Created a turn-based, fighter game using Amazon Alexa voice commands at Southwest Hacks
- Used *Flask-Ask* to create commands and responses in a team-oriented environment
- Built and hosted Alexa Skill on Amazon Web Services

## Skills

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Languages:** | Python | C++ | JavaScript | Java | SQL | Bash | HTML | CSS |
| **Libraries:** | Tensorflow | Caffe | OpenCV | Pandas | NumPy | Scikit-Learn | Matplotlib | |
| **Tools:** | Linux | Jupyter | PostgreSQL | SQLite | Git | | | |

## Extracurricular

- **E2 Camp Counselor**: Mentored incoming freshman on strategies for succeeding in engineering in addition to engaging campers in communication, team building, and engineering practices.
- **Software Developer Association, Member**: Attended SoDA meetings, networked with attendees, and learned about the latest technologies with industry leaders.