# MARIUS GARBEA

3400 Lancaster Ave, Philadelphia PA

(+1)215-802-3336 ♦ mariusgarbea@ymail.com ♦ mariusgarbea.github.io

#### **EDUCATION**

# **Drexel University**

September 2017 - December 2021 (expected)

BS Computer Science and BS Mathematics with honors

GPA: 3.98/4

Member of the Computer Science Theory Group at Drexel

Teaching assistant for CS265 - Advanced Programming Techniques

Co-founder and executive board member of Drexel Blockchain

#### TECHNICAL SKILLS

Computer Languages Software & Tools C#, Python, Javascript, Java, C, Go, Bash, SQL

NodeJS, ReactJS, AngularJS, MongoDB, Spring, Hibernate, Git, LATEX

# **EXPERIENCE**

# Susquehanna International Group

March 2019 - September 2019

Software Engineering Intern

Philadelphia, PA

- · Built a system that transforms FIX messages provided by a trading platform to an internal format, allowing the company to log and reference any chain of transactions
- · Added filtering features to a software that checks expected firewall settings against existing settings, allowing admins to group different policies for comparison
- · Wrote a script for archiving and packaging files based on multiple criteria, used to move trading reports to long term storage

# **ActivFix**

December 2017 - October 2018

Software Engineering Intern

Bucharest, Romania

- · Refactored the codebase from a monolith to microservices using Spring Boot, reducing deployment time and development start-up time
- · Developed an admin module and a payment module, speeding up the launch process by several months
- · Configured and managed the infrastructure of the app using an Ubuntu cloud server and Nginx proxy server, and wrote various automation scripts, reducing admin's manual work by 20%

# RESEARCH AND PERSONAL PROJECTS

### Ascending auctions and split interval scheduling

Research project

- · Converted a linear program for interval graphs to a tight 2-approximation rounding algorithm for weighted group interval scheduling
- · Implemented a two-pass rounding algorithm for item distribution, simulating rounds of a truthful mechanism for ascending auctions
- · Presented about easy and hard variants of interval scheduling to Drexel's theory group

## SpeedPlan

Event flyer scanning mobile app

- · Implemented a data parsing algorithm and a grayscale filter, improving text recognition by 10%
- · Designed the underlying architecture and structure of the app following MVC and DAO design patterns
- · Used specific libraries for camera, file system and external apps interaction and integrated Tesseract OCR