# MARIUS GARBEA

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## 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

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|---|---|
| **Computer Languages** | C#, Python, Javascript, Java, C, Go, Bash, SQL |
| **Software & Tools** | 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 all chains of transactions
· Added multiple filtering features to a software that checks expected firewall settings against existing settings, allowing admins to group different policies for comparison
· Developed a module for archiving and packaging files based on criteria such as source and date, used for trade data migration 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