Ryan Petschek

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Education

Fall 2016 –
Spring 2020

GEORGIA INSTITUTE OF TECHNOLOGY ATLANTA, GA

- Second-year computer science major concentrating in information internetworks and systems & architecture.
  - Software team member on Georgia Tech's RoboJackets "RoboCup" robotic soccer team.
  - Won HackGT 2016's "Best Use of Encryption" award at Georgia Tech's annual hackathon.
  - Won 2nd place in the HoloHack Atlanta hackathon with an AR smart city HoloLens project.

Experience

2017–present **ROBOT AUTONOMY AND INTERACTIVE LEARNING LAB (RAIL)** ATLANTA, GA

Research assistant supporting key PhD research projects (https://github.com/GT-RAIL)

- Assembled a cohesive and easy-to-use set of software tools that allows robots to learn from demonstrations by nonexpert users to accomplish tasks.
- Implemented an advanced object recognition pipeline that allows a robot to observe and adapt to changes in an object's position and orientation without requiring additional training data.

2017–present **HACKGT ORGANIZING TEAM** ATLANTA, GA

Tech Team and Registration & Check-In Project Lead (https://github.com/HackGT)

- Developed and built open-source and scalable registration and check-in infrastructure capable of handling thousands of applications, participants, mentors, and volunteers from across the United States and around the world for HackGT events, including the Southeast's largest hackathon.
- Co-lead coordination with other internal HackGT team members across the tech, design, communications, and operations teams to determine requirements and delegate assignments.
- Architected a free and common infrastructure for HackGT's hackathon software that is fully customizable and ready-to-use by hackathon organizers outside our organization and which helps them reduce the time and financial investment required to run successful events.

2012–2016 **GREENS FARMS ACADEMY ROBOTICS TEAM CAPTAIN** WESTPORT, CT

Co-Captain (2014–2016) and Lead Programmer (2012–2016) (https://github.com/GFA-Robotics)

- Led high school's FIRST FTC robotics team through qualifying stages and into the 2016 Connecticut state tournament where the team finished second. Team's strong performance qualified for the super-regional tournament for the first time in its six-year history.
- Developed and programmed the robot in the RobotC language (a variant of C) for successful driver-controlled and autonomous periods (2012–2015). Redeveloped robot programming in Java for Android in the 2015 / 2016 season to meet new FTC league requirements.
- Trained new team members in RobotC and Java and taught them how to use programming to approach analytical problems and develop algorithms to solve them.

Technical skills

Languages: HTML / CSS, JavaScript, TypeScript, C#, Python, Java (familiarity with C++, Rust, and PHP)
Tools: Git / GitHub, Visual Studio / Xamarin, Node.js / npm, MATLAB, Nginx, Docker
Operating Systems: Ubuntu / Debian Linux, Windows

Personal

Fluent in German (certified by the Goethe Institute). Proficient in French.