#### Paul Serbanescu

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# **Objective**

Aspiring Computer Engineer with a passion for crafting innovative software solutions; seeking an internship or co-op in software development/firmware engineering starting January 2025. Leveraging hands-on experience in iOS app creation, microprocessor firmware for Mars rovers, excited to contribute to projects and start his professional career.

#### **Education**

#### **Georgia Institute of Technology**

Atlanta, GA

Bachelor of Science in Computer Engineering

August 2024 – Expected May 2026

#### Binghamton University - Watson College of Engineering

Transfer with 62 Credit Hours, GPA: 3.91

Binghamton, NY August 2023 – May 2024

Stuvvesant High School

New York, NY

Stuyvesant Endorsed Diploma, Advanced Regents Diploma with Honors, GPA: 94.17/100

#### Skills

Programming: Java, Python, C, C++, Swift, SwiftUI, HTML/CSS, React, Next.js, Node.js, Flutter

**Software:** Intel Quartus Prime, Git, NI LabVIEW, GitHub, Onshape CAD, Blender, Adobe Products, Microsoft Office, Android Studio, Xcode **Hardware:** Raspberry Pi, Beaglebone, FPGAs, Oscilloscope, Teensy

# **Experience**

Stuy Schedule App

New York, NY

January 2022 – June 2024

Creator, iOS Developer

- Developed a scheduling utility app to serve the Stuyvesant High School community, accumulating over 3,200 downloads and 1,000+ daily active users.
- Used Apple's Swift language and Xcode to develop multiplatform versions published to the Apple App Store.
- Created accompanying JSON API to serve updated information to users.
- Used the latest iOS 16 features in Swift and SwiftUI, including home and lock screen widgets with live updates.

# **Extracurricular Experience**

# Binghamton University Mars Rover Team

Binghamton, NY

Firmware developer

September 2023 – May 2024

- Interfaced with rover subsystems using Teensy microprocessor to send commands over CAN using C++ code.
- Debugged all firmware systems, referring to documentation for non-trivial issues.

### First Tech Challenge Stuy Fission Robotics Team

New York, NY

Vice President

June 2022 – June 2023

- Led the team in technical discussions, including hardware and software, and distributed tasks among small teams.
- Planned community events, robot showcases, lab tours, and fundraising of over \$2,000.
- Managed team budget of \$4,000 and negotiated with school administration a \$1,000 budget increase over the prior year.
- Awards: 3x Finalist Alliance Captain, Winning Alliance Captain, Ranked 34/6,059 worldwide.

Head of Software Engineering

*August 2021 – June 2023* 

- Developed robot control systems using Java and OOP, including teleoperated and autonomous modes.
- Created a Java code library (FissionLib) which was published through JitPack and open-source on GitHub.
- Completely rewrote the old codebase to utilize modern techniques, including finite state machines and command-based programming to streamline and optimize runtime latency, reducing it by 100ms.
- Designed several hardware components, including robot drivetrain to ensure seamless hardware-software interactions.

### **Awards**

Excellence in Leadership Stuy Fission Robotics Team, National AP Scholar, National French Contest Silver Medal 2022 & 2023, 3x Innovate Award sponsored by Raytheon Technologies, Control Award sponsored by Arm, Inc. 2nd Place.

# **Relevant Coursework**

# **Binghamton University**

- Programming & Hardware Fundamentals
- Calculus II & III
- General Physics I & II

# Stuvvesant High School

- Data Structures and Algorithms in Java
- Computer and Networking Systems in C
- Graphics engine from scratch in Python and C