Paul Serbanescu

Atlanta GA, New York NY | (917) 530-0527 | U.S. Citizen | pserb@gatech.edu | www.pserb.me | https://github.com/pserb | https://www.linkedin.com/in/pserb/

Education

Georgia Institute of Technology — Atlanta, GA
Bachelor of Science in Computer Engineering — *August 2024 – Expected May 2026*

Binghamton University – Watson College of Engineering — Binghamton, NY
Transfer with 62 Credit Hours, GPA: 3.91 — *August 2023 – May 2024*

Stuyvesant 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, VHDL
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

Georgia Institute of Technology Department of Chemistry and Biochemistry — Atlanta, GA
Team Lead, Software Engineer - Web — *August 2024 – December 2024*

- Student assistant building online laboratory simulation webpage, integrating Three.js, Next.js, and React to build frontend components.
- Led team of six to establish Git workflows with submodules integrated to Plesk hosting platform to serve Node.js site on university domains.
- Focused on accessibility and UI/UX for ease of use and target audience, communicating with faculty for feedback.
- Achieved a 10-second reduction in loading times through a 500% reduction in asset size and migration to Next.js.

Stuy Schedule App — New York, NY
Creator, iOS Developer — *January 2022 – June 2024*

- Developed a scheduling utility app to serve the Stuyvesant High School community, accumulating over 3,700 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.
- Integrated 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, Head of Software Engineering — *August 2021 – 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.
- 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.

Personal Projects

Zephyr — Atlanta, GA
CPU built in Verilog — *October 2023 – Present*

- 8-bit CPU with four registers, 16 words of program memory, ALU, program counter, and instruction register.
- Fully integrated RTL-to-GDSII flow to produce fabrication-ready design on the Nangate45 platform.

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. Ranked 34/6547 in FTC 2023 season.

Relevant Coursework

Digital Design Lab: VHDL, FPGAs, Quartus
Digital System Design: Breadboard, NI myDAQ
Data Structures and Algorithms: Java
Computer and Networking Systems: C
Computer Graphics: C and Python
Calculus I, II, & III
General Physics I & II
Discrete Mathematics