

Paul Serbanescu

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Education

Georgia Institute of Technology <i>Bachelor of Science in Computer Engineering</i>	Atlanta, GA <i>August 2024 – Expected May 2026</i>
Binghamton University – Watson College of Engineering <i>Transfer with 62 Credit Hours, GPA: 3.91</i>	Binghamton, NY <i>August 2023 – May 2024</i>
Stuyvesant High School <i>Stuyvesant Endorsed Diploma, Advanced Regents Diploma with Honors, GPA: 94.17/100</i>	New York, NY

Skills

Programming: Java, Python, C, C++, Swift, SwiftUI, HTML/CSS, React, Next.js, TypeScript, JavaScript, 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 <i>Team Lead, Software Engineer - Web</i>	Atlanta, GA <i>August 2024 – December 2024</i>
<ul style="list-style-type: none">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 <i>Creator, iOS Developer</i>	New York, NY <i>January 2022 – June 2024</i>
<ul style="list-style-type: none">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 <i>Firmware developer</i>	Binghamton, NY <i>September 2023 – May 2024</i>
<ul style="list-style-type: none">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 <i>Vice President, Head of Software Engineering</i>	New York, NY <i>August 2021 – June 2023</i>
<ul style="list-style-type: none">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 <i>CPU built in Verilog</i>	Atlanta, GA <i>October 2023 – Present</i>
<ul style="list-style-type: none">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	Computer Graphics: C and Python
Digital System Design: Breadboard, NI myDAQ	Calculus I, II, & III
Data Structures and Algorithms: Java	General Physics I & II
Computer and Networking Systems: C	Discrete Mathematics