

Brian Ellsworth

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Education

B.S. Applied Physics — Rutgers University, New Brunswick, New Jersey (2018)

- Departmental Honors, Cum Laude, minor: Computer Science

B.S. Electrical & Computer Engineering — Rutgers University, New Brunswick, New Jersey (2018)

- Honors, Cum Laude

Work Experience

Embedded Engineer — Prong Technologies LLC, Huntsville, Alabama (7/2021 – present)

- Writes C/C++ code for microcontroller-based printed circuit boards
- Writes Python and Bash scripts
- Troubleshooting printed circuit boards using electrical test equipment
- Leads product development of embedded products
- Prototypes parts and assemblies using CAD models, FDM, and resin printing
- Generates and maintains product documentation
- Develops and updates manufacturing and test procedures
- Ensures project completion within budget, quality, and contractual constraints

Project Engineer — Everson Tesla Inc., Nazareth, Pennsylvania (6/2018 – 2/2020)

- Assumed full responsibility for the manufacturing of electromechanical products while meeting requirement, budget, schedule, and quality constraints
- Created and maintained documentation for each project, including project schedules, price quotations, bills of materials (BOMs), manufacturing procedure outlines (MPOs), data travelers, and quality assurance requirements
- Performed testing for electrical and geometrical conformance
- Integrated project tasks by communicating directly with customers, suppliers, procurements, CAD engineers, manufacturing technicians, and quality assurance
- Directed technicians and machinists to complete essential project operations
- Coordinated with suppliers and customers to meet project requirements

Undergraduate Researcher — Andrei Research Group, Piscataway, New Jersey (6/2017 – 5/2018)

- Increased by an order of magnitude the diameter of monocrystalline graphene grown in a chemical vapor deposition system via electrochemical polishing.

Awards

Eagle Scout — Boy Scouts of America, Middletown, New Jersey (2013)

International Baccalaureate Diploma — IB Diploma Programme, Freehold, New Jersey (2013)

Volunteer Experience

Executive Board Member — Society of Physics Students, New Brunswick, New Jersey (9/2017 – 5/2018)

- Planned and executed events with undergraduate students and physics faculty

Senior Patrol Leader — Boy Scouts of America, Middletown, New Jersey (3/2006 – 1/2013)

- Led Troop 246 and planned activities with facilities, Scoutmaster, and volunteers

Skills

- C/C++ and Python Programming in VSCode
- Microsoft Office Suite, including MS Project
- Data analysis using Excel, Sheets, Python, SQL
- Complexity analysis of algorithms and data structures
- Experience with Windows and Linux OS
- CAD modeling using SolidWorks
- Git and Github for version control
- Generation and maintenance of project documentation
- Shell Scripting in Bash and PowerShell
- Database management using SQL and ERP software