

Resume

500 N 21st Street
Philadelphia, PA 19130

Nathan A. Sobotka
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3901 Locust Walk
Philadelphia, PA 19104

Education

University of Pennsylvania, School of Engineering & Applied Science | Philadelphia, PA May 2024
Candidate for Bachelor of Science in Engineering
Major / Minor: Computer and Information Science / Mathematics
Major / Cumulative GPA: 4.00 / 3.97

Saint Paul Academy and Summit School | St. Paul, MN June 2020
Honors/Awards: Rensselaer Medal; National Merit Finalist; Cum Laude Society

Employment

REU Intern | University of Pennsylvania May – August 2022

- Tested the memory model of the Vellvm Project under Professor Steve Zdancewic. This involved formal verification in Coq, automated tests in QuickChick, and unit tests in LLVM.

Weingarten Tutor | University of Pennsylvania January – June 2022

- CIS-160: Mathematical Foundations of Computer Science
- MATH-312: Linear Algebra

Publications

Publication in Journal of Emerging Investigators January 2020

- “The Effects of Various Plastic Pollutants on the Growth of the Wisconsin Fast Plant,” Journal of Emerging Investigators (project supervised by Karissa Baker). Work done in 2017-2018

Medical Research | Minneapolis VA Medical Center March 2018

- Data management, 2nd author on paper titled, “Percutaneous Creation of a Central Iliac Arteriovenous Anastomosis for the Treatment of Arterial Hypertension”

Volunteer Experience

Hospital Research | Minneapolis, MN June – August 2018
Minneapolis VA Medical Center

- Communicated with cardiology patients and families, shadowed cardiologists as they went about their daily duties, and learned about doctor patient interactions

Tennis Coaching | Minneapolis, MN August 2016 – March 2020
Fred Wells Tennis and Education Center

- Mentored and coached underprivileged children in lessons and competitive play

Leadership

Captained Science Alliance August 2016 – March 2020

Captained Varsity Tennis Team | Minnesota March 2015 – June 2020

- Placed 5th in singles | 2nd, 4th, 3rd, and 2nd as a team. June 2019 | June 2016 – June 2019

Skills & Interests

Programming Languages (years): Java (), Python (1), C (1), MATLAB (2), Verilog (1), Coq (1)
Interests: Competitive tennis and aerospace engineering through clubs