Brenden Brusberg

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Summary

I am a student at Steven's Institute of Technology focusing on computer science and math. My technological passions pivot around data science, machine learning, and graphics. I have a successful interest in using C-like languages to utilize graphic memory and Arduino boards with self-learned skills in CAD and 3D printing. Moreover, I am adapting my C/C++ style to my math interests to applications in machine learning and data science.

Work Experience

Stevens Institute of Technology IT, Hoboken, NJ

Course Assitant: CS-392 — Jan. 2019 - Present

- Systems Programming, providing a deep understanding of UNIX like systems and how to implement system tools in C. Personal responsibilities include grading, office hours, reviews, and covering lectures when needed.

User Support Technician — Mar. 2018 - Present

- As user admin, it is my responsibility to not only help users but manage sensitive data and problems involving school accounts, networks, and supported software

McKinsey and Company, NYC, NY — May 2018 - Aug. 2018

Analytics Intern

- A part of a scrum development team that designed a firm-wide tool using a Shiny app developed in R to visualize analytics derived from NLP (Sentiment analysis, semantic analysis, topic modeling using Word2Vec and Latent Dirichlet Allocation, etc.) on any given text corpus
- In parallel, aided a separate team in testing Alteryx and Tableau products for the firm-wide analytics catalog

Omni Systems Associates, Sparta, NJ

Programmer — Dec. 2016 - June 2017

- Programmed C/C++ on Arduino boards in conjunction with sensors to monitor and control a greenhouse through Wi-Fi
- Acquired Knowledge applied to host my own website on my Raspberry Pi

Education

Stevens Institute of Technology, Hoboken, NJ — Expected May 2021

Bachelor of Science in Computer Science

Minor in Mathematics

GPA: 3.70 **Honors**: Deans List

Projects and Skills

Graphics Programming used to Model Neuroevolutinoary Topologies

- In the interest of recreating the NEAT algorithm through a pedagogic video game
- Visual representation on how ML can be similar to evolving mathematical topologies akin to biological genomes
- Neural networks model the A.I species confronted in the game, each generation's fitness determined by progress against the player, uniquely adapting to every player in each playthrough

Prosthetic Arm

- Designed and modeled with Autodesk Inventor/Blender to be a functional hand and wrist
- 3D printed and fabricated with wires and hinges providing a cheaper and functional prosthetic that can be resized, and redesigned for the child as he grows

Software/Tools: Linux, Emacs, OpenGL, R Studio/Connect, Tidyverse, Shiny, CUDA, Git, Eclipse IDE
Languages: R, C, C++, Java, SQL
Achievements: Eagle Scout, Order of the Arrow, Vice-President of the Stevens Rock Climbing Team