## STEPHEN NOROD

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Georgia Institute of Technology – Atlanta, GA

Bachelor of Science: Computer Engineering

GPA: 3.30/4.00 Classification: Junior

May 2019

## **EXPERIENCE**

Abbott Laboratories / St. Jude Medical — Embedded software engineering full-time co-op, worked on the CardioMEMS Heart Failure System (an FDA-regulated product) as part of the R&D team

Jan. 2017 - June Atlanta, GA

- Translated a faulty XML parser from C# to Python, debugged it, and updated it to print XML data entries into an Excel workbook with multiple worksheets
- Analyzed PCB schematics, performed electrical testing and solder inspection on circuit boards, experimented with testing environments, and authored a technical report to address an electronic performance issue
- Updated a software application's build scripts from Bash to Python for ease of use

**Brain Trauma Assessment Protocols** – Android developer for Georgia Tech VIP (Vertically Integrated Projects) team under Dr. Elliot Moore II, tasked with building a suite of mobile app modules to administer tests and collect data from individuals who have suffered brain traumas

Aug. 2016 - Dec. Atlanta, GA

- Developed an Android app module to simulate an image-naming neuropsychological test, provide digital audio feedback, and retrieve audio data from the user

**RoboJackets IGVC** – Software engineering sub-team member for Georgia Tech's Intelligent Ground Vehicle Competition team, tasked with producing an autonomous robot capable of navigating an off-road obstacle course

Sept. 2015 - Dec. Atlanta, GA

## **PROJECTS**

<b>snorod.com</b> - Developing a side-scroller game to embed in personal website using melonJS and GitHub Pages	Feb. 2016 - Present
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Pacman - Building general search algorithms for a Pacman AI to find efficient paths through a maze world

Jan. 2018 - Mar.

Sept. 2017 - Oct.

**boggle-ish** - Created a numeric Boggle-style game in Java, which generates a random playing board of numbers and finds each solution (a chain of numbers that adds up to the board's area) using depth-first graph traversal

Mar. 2017 - Apr.

Virtual Doctor - Prototyped an Amazon Alexa skill for diagnosing a user's illness based on his or her symptoms

Find George - Designed efficient image-searching algorithms for locating a variably scaled target in C and ASM

Feb. 2017 - Mar.

**DE2Bot** - Programmed a DE2Bot to semi-autonomously explore an area, locate objects using sonar distance sensors, touch these objects, and return to its initial position in the most efficient manner possible

Nov. 2016 - Dec.

DTMF Decoding - Designed eight FIR filters (band-pass and high-pass) for decoding DTMF signals using MATLAB

Apr. 2016

**pitchPy** - Developed a Python program for tuning instruments by manipulating input frequencies to detect the pitch of notes at HackFSU '16 (Florida State University hackathon)

Feb. 2016 - Mar.

## **SKILLS**

**Programming** – ADVANCED: Python, Java, JavaFX, MATLAB

INTERMEDIATE: ASM, C, Bash, HTML, CSS, JavaScript (melonJS / React)

BEGINNER: React Native, Git, SVN, VHDL, PowerShell, Linux (Ubuntu), XML, JSON, C#, Android, Tcl, Tkinter, ROS

Software / Instrumentation – mbed, Altera Quartus II, Oscilloscope, Logic Analyzer, FPGA, NI myDAQ, NI ELVISmx, DMMs, Altera DE2 Board/Bot, Tiled Map Editor, Trac, Windchill, AWS Lambda, Amazon DynamoDB, Audacity, Autodesk Inventor Pro

**Engineering** – Data Structures and Algorithms, Artificial Intelligence, Digital Signal Processing, Digital System Design, Physical/Mathematical Foundations of Computer Engineering, Architecture/Concurrency/Energy in Computation, Circuit Analysis

Communication – Technical Writing, Adv. German, Basic Korean, Overcoming Language Barriers, Tutoring, Recruiting, Mentoring

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GT Circle K (Boys & Girls Club volunteering)

Volunteer

Jan 2018 - Present

Tech the Halls (mentorship program for disadvantaged children in Atlanta)

Mentor

Sept. 2015 - Present

Abbott Laboratories / St. Jude Medical

Career Fair Recruiter

Jan. 2017 - June

Brain Trauma Assessment Protocols (Georgia Tech VIP team) Info Session Recruiter Aug. 2016 - Dec.