Nicholas A. **Roberson**

SOFTWARE DEVELOPER · RESEARCHER

1220 6th ave., Grinnell, Iowa, 50112

703-336-9516 | roberson@grinnell.edu | NickRoberson.github.io | NickRoberson | nicholas-roberson

Education

Grinnell College, Grinnell, IA   **August 2014 - May 2018**
B.A. in Computer Science
GPA: 3.55/4.00, Major GPA: 3.70/4.00, Hack MIT 2017 award winner
Selected Coursework: Algorithms/Object Oriented Design, Data Visualization, Computer Networks, Computer Architecture, Electronics, Software Development Principles, Team Software Dev. for Community Orgs., Combinatorics, Linear Algebra.

Aquincum Institute of Technology, Budapest, Hungary   **August 2016 - December 2016**
Selected Coursework: Theory of Computing, Graph Theory, Combinatorial Optimization, Mobile Software Development.

Programming Skills

Programming: Java, C, Python, JavaScript, Ruby, Android, Scheme, SQL, HTML.
Software: Eclipse, IntelliJ, NetBeans, PyCharm, Emacs, Android Studio, Gluon Scene Builder.
Other: Android, Java, and web development, data visualization (D3.js), hardware (Arduino/Raspberry Pi).

Work Experience

Undergraduate Researcher, Grinnell, IA   **May 2017 - Present**
Grinnell College Computer Science Department

- Worked with students and professors at Grinnell College and Iowa State University to develop and prove the correctness of robust design patterns in molecular programming using chemical reaction networks.
- Developed a Molecular Programming IDE, titled Caldron, using the NetBeans IDE and JavaFX.
- Submitted a paper titled, "Cauldron: An IDE for Modular Development of Chemical Reaction Networks" to the BIOSTEC 2018 conference.

Android Developer, Grinnell, IA   **August 2016 - Present**
Grinnell College Application Development Club

- Wrote front and back end code for the campus directory and radio station Android applications.
- Communicated with student designers to produce the UI look and feel for various applications.

Web Development Intern, Menlo Park, CA   **May 2016 - August 2016**
SRI International - S.T.A.R. Lab

- Collaborated with S.T.A.R. Lab team members to develop a web based application to gather data from native speakers of endangered languages for the purpose of cultural preservation.

Projects

Caldron IDE   **2017**
A large scale, cross-platform, molecular programming IDE built using JavaFX. Caldron allows users to modularly develop and test chemical reaction networks (CRNs) for computation, a feature currently unavailable in any other IDE/program for CRNs.
Spotify User Visualization   **2017**
A website for Spotify users to visualize their account information and discover new music, built using D3.js.
First Responder   **2016**
An Android application that aims to cut down on paramedic response time for severe injuries, built using Google Firebase.

Extracurricular Involvement

Varsity Swim and Club Water Polo Teams   **August 2014 - Present**

- Dual captain of the Grinnell College swim and water polo teams for the 2017/2018 season.
- 8-time medal winner at the Midwest conference championships and 3rd and 5th place finisher at DIII CWPA nationals.

Volunteering   **August 2015 - Present**

- Coordinated volunteer efforts for Grinnell food pantry, local waterway cleanup, and more.