Ryan Drew

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Education

Northeastern University, Boston, MA   Sep 2017—Present
Khoury College of Computer Sciences | Candidate for BS in Computer Science, December 2021
GPA: 3.8/4.0
Activities: Distilled Harmony A Cappella (President), TA for Accelerated Fundamentals of CS 1
Relevant Courses: Computer Systems, Networks & Distributed Systems, Building Extensible Systems

Experience

Facebook – *Software Engineering Intern*   May 2021 – Aug 2021
- Wrote data normalization algorithm for showing multiple curves on the same graph using limit calculus
- Invented and implemented new web component outside of assigned project, now used by multiple other Facebook teams in place of their old solution due to ~70% performance improvement

Facebook AI Research – *Software Engineering Intern*   May 2020 – Aug 2020
- Designed and implemented modular block-based programming interface for directly teaching a generalist AI bot new skills, resulting in a published paper: https://arxiv.org/abs/2101.10384
- Deployed programming interface to a web application using AWS for data collection outside team

NASA Jet Propulsion Laboratory – *Software Engineering Co-op*   Jan 2020 – May 2020
- Design new data visualizations for Curiosity rover telemetry used at mission-wide "trending" missions
- Modularize JavaScript code into a library for use in different existing and potential applications, including Plotly.js visualization code, Elasticsearch query code, and JavaScript data modification code
- Develop rover software patch to fix potential fatal shutdown vulnerability (will uplink Summer 2021)

Paperless Parts – *Software Engineering Co-op*   Jan 2019 – Aug 2019
- Added and maintained the company's only end-to-end testing, integrating Selenium with Jenkins CI
- Increased frontend build performance by over 60% by rewriting its build process using Webpack

Sandbox at Northeastern – *Executive Director & Co-founder*   Oct 2018 – Dec 2019
- Founded a software consulting organization with 45 members building applications for researchers
- Managed external communications and growth, securing funding, AWS support, and new members

Computer Knowledge

Languages: JavaScript, Python, Java, HTML, CSS, Rust, Racket/Scheme, C
Frameworks/Tools: React, NodeJS, Webpack, Plotly.js, Django, Selenium, NGINX, Git, Vim, Figma

Projects

SearchTRACE – *Co-Creator*   Apr 2019 – Present
Designed and implemented the frontend using React for an application to present Northeastern course review data in an intuitive and easy-to-use way. Received the Design Award for UI/UX at HackDartmouth 2019.

Gatsby, Webpack – *Contributor*   Mar 2019 – Present
Add features, fix bugs, and write documentation for two open-source packages used by millions of projects.

Interests

- Distance running, UI/UX design, music performance, personal health, Esports