Colin Harfst

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Profile

I am interested in creating dynamic, informative software to empower innovative organizations. I am seeking challenging opportunities where I will be able to make an immediate impact and where I will be able to grow my technical expertise regarding modern software engineering practices and large scale data analysis techniques.

Education

- **University of Virginia**, Charlottesville, VA - Graduation: 2018
    - Bachelor of Arts in **Computer Science** and **Mathematics**
    - Cumulative GPA: 3.4/4.0

Work and Research Experience

Software Engineer & Consultant | CapTech Ventures, Inc. | Richmond, VA
Aug 2018 – Present

Fortune 500 insurance holding company (Apr 2020 - Present)
- Developed and tested a full-stack web application to track insurance claims within an interactive dashboard (Vue, Django, and SQL)
- Enhanced existing database ETL processes to normalize data from multiple source systems

Fortune 500 automotive retailer (Feb 2019 - Apr 2020)
- Developed and tested a full-stack web application to process vehicle sales (React and .NET Core)
- Developed features to relay customer loan requests to financial institutions in real-time using WebSockets
- Designed the primary production support dashboard and alerting system using Azure Application Insights
- Wrote automated tests using WebdriverIO

Fortune 500 consumer product manufacturer (Sep 2018 - Dec 2018)
- Developed and tested an API for verifying and authenticating user identities (.NET Core)
- Integrated internal authentication solutions with external solutions, such as LexisNexis

Data Analyst Intern | IST Research Corp. | Fredericksburg, VA
May 2017 – Aug 2017
- Developed and tested a data analytics API which connected to a database of text and images scraped from Twitter (Flask, ElasticSearch, and Docker)
- Developed endpoints to perform reverse image searches and natural language processing tasks such as sentiment analysis and named-entity recognition

Undergraduate Teaching Assistant | UVA Computer Science Department | Charlottesville, VA
Jan 2017 – May 2018
- Guided students in their efforts to construct formal proofs, under three different instructors, for the course Discrete Mathematics
- Held twice-weekly office hours to assist students with homework and exam preparation
- Graded homework submissions and exams for hundreds of students

Undergraduate Researcher | UVA Mathematics Department | Charlottesville, VA
May 2016 – Aug 2016
- Studied types of hypergraphs using an abstract algebra-oriented programming language (Macaulay2)
- Guided research on an unproven conjecture in abstract algebra by systematically generating examples of hypergraphs with a special quality

Skills

- Front-end web technologies: **JavaScript**, **TypeScript**, **React**, Vue, Gatsby, SCSS, and HTML
- Back-end web technologies: **.NET Core**, **Node.js**, **Express**, Django, Flask, and GraphQL
- Additional programming languages: **Python**, R, C++, C, C#, and Java
- Cloud technologies: **AWS** (lambda, S3, ec2) and **Azure** (app service, app insights, Azure functions, Redis cache, SignalR, key vault)
- DevOps tools: **GitHub** and **GitLab CI**, TeamCity, Azure DevOps, and Docker