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 automotive retailer - I developed a web application with React and .NET Core to process vehicle sales. The application featured real-time relaying of customer loan requests to financial institutions using WebSockets. I was responsible for full-stack development, cloud infrastructure support, automated testing with WebdriverIO, dashboard development, and production support.

Fortune 500 consumer product manufacturer - I developed a .NET Core microservice for verifying and authenticating user identities using internal and external solutions, such as LexisNexis.

Data Analyst & Software Developer | IST Research Corp | Fredericksburg, VA

May 2017 – Aug 2017

As an intern, I led the development and testing of a data analytics API which connected to an ElasticSearch database of text and images scraped from Twitter. The API could 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

As a teaching assistant under three different instructors for the course Discrete Mathematics, I was responsible for holding twice-weekly office hours, grading homework submissions and exams, and helping students learn to construct proofs.

Undergraduate Researcher | UVA Mathematics Department | Charlottesville, VA

May 2016 – Aug 2016

As a research assistant, I studied types of hypergraphs using an abstract algebra-oriented programming language. The research generated examples of hypergraphs with a special quality and gave direction in research on an unproven conjecture in abstract algebra regarding such hypergraphs.

Skills

- Front-end web technologies: **JavaScript**, **TypeScript**, **React**, Gatsby, SCSS, and HTML
- Back-end web technologies: **.NET Core**, **Node.js**, **Express.js**, 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