Colin Harfst

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Profile

I am interested in designing and developing software solutions for innovative organizations. I am seeking opportunities where I can make an immediate impact and where I will be challenged beyond just my specific skills as a software engineer. I am particularly intrigued by the potential of contributing to team projects with ambitious goals to transform vital industries, such as: renewable energy, transportation, healthcare, or education.

Education

University of Virginia, Charlottesville, VA   Aug 2014 – May 2018
   − Bachelor of Arts: **Computer Science** and **Mathematics**
   − Cumulative GPA: 3.4/4.0

Work and Research Experience

Senior Software Engineer | CarMax, Inc.   Jun 2021 – Present
(Software Engineer II: Jun 2021 – Aug 2023)
   − Developed a full-stack web application for customers to reserve vehicles and to schedule appointments
   − Developed a system of integrated microsites and microservices for customers to upload documents required for transactions and for associates to review uploaded documents
   − Architected an approach for authenticating customers' accounts before delivering their digital sales documents as a replacement for an externally contracted product
   − Leveraged a third-party solution (IDEMIA) to automate verification of customers' driver's licenses
   − Developed and promoted an internal shared library for reusable front-end components distributed via NPM
   − Scripted deployment pipelines to manage cloud-based environments and implemented alerting to monitor outages
   − Technologies: C#, .NET, TypeScript, React, Azure (App Services, Functions, Service Bus, Cosmos, etc.)

Freelance Software Engineer | FlyCast River Forecast, LLC   Mar 2021 – Oct 2023
   − Developed an experimental paid customer rewards program to incentivize purchases with participating partners
   − Developed an experimental search tool for anglers of all skill levels to improve their fly tying skills
   − Technologies: Python, Django, Flask, JavaScript, React, PHP, SQL, Google Cloud

Senior Consultant | CapTech Ventures, Inc.   Aug 2018 – May 2021
(Consultant: Aug 2018 – Jan 2021)
   Fortune 500 insurance holding company (Apr 2020 – May 2021)
   − Developed a full-stack web application for adjusters to track insurance claims within an interactive dashboard
   − Enhanced existing database ETL processes to standardize data originating from disparate source systems
   − Technologies: Python, Django, JavaScript, Vue, SQL
   Fortune 500 automotive retailer (Feb 2019 – Apr 2020)
   − Developed a full-stack web application to modernize vehicle sales, vehicle acquisition, and customer financing
   − Relayed customer financing offers from internal and external lenders directly to customers' in-progress sales orders
   − Designed a production support dashboard for monitoring releases and usage metrics
   − Technologies: C#, .NET, TypeScript, React, Redux, Azure (App Services, Insights, Key Vault, SignalR, etc.)
   Fortune 500 manufacturing company (Sep 2018 – Dec 2018)
   − Developed a headless service for verifying and authenticating user identities by integrating internal solutions with a third-party solution (LexisNexis)
   − Technologies: C#, .NET

Data Analyst Intern | IST Research Corp.   May 2017 – Aug 2017
   − Developed an API to perform reverse image searches and natural language processing tasks, such as sentiment analysis and named-entity recognition, on a database of text and images scraped from Twitter
   − Technologies: Python, Flask, ElasticSearch, Docker

Undergraduate Teaching Assistant | UVA Computer Science Department   Jan 2017 – May 2018
   − Guided students in their efforts to write formal proofs and understand set theory, under three different instructors, for the course Discrete Mathematics

Undergraduate Researcher | UVA Mathematics Department   May 2016 – Aug 2016
   − Studied hypergraphs with special characteristics using a mathematics centric programming language (Macaulay2) to guide research on an unproven conjecture in abstract algebra