# Carter Edge

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## Relevant Experience

Software Engineer II
May 2019-current

Core10, Huntington, WV

Developed financial applications for multiple clients using a wide variety of technologies, advocated for best practices, and used multiple platforms for git-based version control, as well as different tools for Agile ceremonies and tracking, primarily Jira. Continuously communicated with a wide variety of clients of various technical proficiencies ranging from other developers to those with minimal technical expertise to plan projects, devise acceptance criteria, prioritize tasks, report on progress, test, respond to feedback, and provide ongoing support.

#### Project highlights include:

- Contributed as the primary developer on a small team of only two developers to a single-page web app with a JavaScript/proprietary platform front end, a Java middleware for the proprietary platform, and a Python/Django back end that used Selenium-based web automation tools to help users accomplish various personal finance related tasks. Deployed and managed the web app on AWS with Docker/Nginx.
- Contributed to a banking app ecosystem on teams ranging from being the sole developer to over a
  dozen developers of multiple apps using Java/Springboot, Typescript/React, a proprietary web
  platform, and multiple proprietary 3rd-party financial APIs. Wrote and implemented web
  accessibility guidelines based on a11y and WCAG standards to make the apps accessible to diverse
  audiences.
- Contributed on teams of between two and eight developers to internal and client-facing financial tools with .NET APIs, each with 100+ endpoints/actions, over 100 database tables, and roughly 30 front end pages using Razor pages, Vue, and Blazor Web Assembly pages. Used Telerik tools for data, UI, and report generation. Helped deploy the APIs on Azure/AWS. A client's lead architect accepted me as the most expert developer on the team of developers in both the client's company and Core10, and would rely on me for advice, helping other developers, and migrating the project to more recent versions of .NET and Node/Vue.
- Contributed on a team of four developers to a gradient ascent optimization tool API using Feathers
   (using TypeScript on Node) with roughly 100 endpoints. Introduced an expandable/reusable API class
   that expanded Feathers to fit our particular needs, and used it to refactor the API, reducing the code
   by 600 lines (about 20% of the total code base) on AWS.
- Contributed to the migration of a database from MS SQL Server to PostgreSQL to be compatible with AWS Aurora involving roughly 700 tables, 400 stored procedures, and 100 views, using Flyway for migration and PGTap for test coverage. Scripted ETL pipelines using AWS Step Functions, Glue Jobs, Lambdas, and stored procedures.

Achieved proficiency in new technologies and skills quickly, working with Python/Django,
JavaScript/TypeScript, jQuery, ReactJS, Java/Springboot, Docker, Vue, ASP.NET, .NET Core, React
Native, NextJS, Node, Razor pages, Blazor WASM, PostgreSQL, MS SQL, MySQL, GraphQL, and other
technology including proprietary platforms and APIs across many projects.

Consultant Electrical Engineer May 2019-2020

Self-employed

Assessed various electrical properties and assured that building plans met electrical code.

Graduate Teaching Assistant

West Virginia University, Morgantown, WV

Aug. 2008-Dec. 2013

Lectured, created curriculum content, administered and graded quizzes and tests, offered direct assistance and advice for students, and assisted in maintaining and troubleshooting lab equipment for Analog Electronics labs, Digital Logic labs, Circuits 2 lab, Digital Electronics lecture and lab, and assisted with curriculum creation and helping students in Computer Science 101 during various semesters.

Part Time Faculty Aug. 2011-May 2012

Belmont Technical College, Belmont, OH

Lectured, created curriculum content, administered and graded quizzes and tests, offered direct assistance and advice for students, and assisted in maintaining and troubleshooting lab equipment for lecture and lab of Semiconductor Electronics and Digital Electronics.

## Non-Work Experience

WVU Lunabotics Team Aug. 2012- Aug. 2013

West Virginia University, Morgantown, WV

Completed software design and coding tasks for the NASA Lunabotics Lunar Mining competition, which focused on designing a robot to navigate obstacles and complete objectives in a simulated lunar environment. Helped implement and tune motor control and telemetry systems, special mapping using Monte-Carlo modeling, automation of tasks, and various as-needed work. Participated in real-time troubleshooting of code and hardware during the competition without having access to the robot itself. The team received second place overall (Joe Kosmo Award for Excellence).

# Other Recent Experience

Tech Consultant June 2017-April 2019 Target, Triadelphia, WV

Sold electronics, offered technical help, and performed numerous other tasks as needed in the electronics department.

Electronics Team Member May 2016-Apr. 2017

Target, Lincoln, NE

Sold electronics, offered technical help, and performed numerous other tasks as needed in the electronics department.

Hunting Outfitter
June 2014-June 2015

Cabela's, Triadelphia, WV

Maintained, sold, and answered questions about cutlery, optics, ammunition, firearms components, and shooting accessories.

## Education

West Virginia University, Morgantown, WV
Bachelor of Science in Computer Engineering and Bachelor of Science in Electrical Engineering, May 2007
Graduate Coursework in Electrical Engineering, Dec. 2014

### Skills

- Programming, scripting, and software development, using:
  - Python (including Django, Flask, Gunicorn, Sqlalchemy, unittest, BeautifulSoup, fuzzywuzzy, and Selenium)
  - Java (including SpringBoot, JDBC, JUnit, Jackson)
  - JavaScript (including jQuery, Node, Vue, ReactJS, Jest, Webpack, Babel, NextJS, Feathers)
  - o C# (.NET Core, EntityFramework, Razor Pages, Blazor WASM, xUnit, Moq)
  - HTML (including Bootstrap and various proprietary UI libraries/APIs including Onsen and Telerik/Kendo) and CSS/SASS.
- Programming best practices including SOLID principles, documentation, security, testing, VCS, web accessibility policy design and implementation
- Agile development using Jira on teams of various sizes from solo to large teams
- Experience with various development tools including Git, Docker, and Postman
- Computer and networking skills, including Linux, Nginx, and hardware troubleshooting, replacement, and upgrading
- Deploying and managing services on AWS and Azure
- RESTful API architecture and development
- PostgreSQL, MySQL, MS SQL, and SQLite database design, implementation, management, and automation
- Image processing, including medical imaging processing, computer vision, and biometric applications
- Machine learning applications, including pattern recognition, genetic algorithms, and neural networks
- CAD, including PSPICE, Microstation, and others
- Control systems including PID and fuzzy logic
- Analog and digital circuit analysis and design including sequential logic design and implementation
- Strong interpersonal skills developed through teaching and retail experience