

# David Markham

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## WORK EXPERIENCE

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*Senior Software Engineer with 13 years experience in backend development.*

### Centervention

April 2017 – Present

*Senior Game Developer*

*Durham, NC*

- Highly driven lead developer for an innovative education technologies game studio ([Centervention.com](http://Centervention.com)).
- Overseeing all game development and game **backend** for our growing portfolio of branching-dialogue adventure games:
  - **Scaled** users by 6x to over 100,000 game subscriptions in tens of thousands of schools.
  - Responsible for five HTML5 games featuring 5-30 hours of game-play that improve students' social and emotional skills.
- Shipped multiple HTML5 games by designing and coding using the Godot game engine and a language very similar to **Python**.
- **Automated** and streamlined asset pipelines, enhanced game dev. tools, and built game's **backend** using **Python, PHP, and MySQL**.
- Full-stack web development using **Laravel PHP** and **ReactJS**, adding features to the front-end and backend of web applications.
- Optimized and reduced memory footprint and download size of our games on mobile devices by over 60%.
- Mentored junior game developers and coordinated with test, support, art, sales, and web teams.
- Played a critical role in scaling websites and games by leading initiative and executing the move of all IT operations to **AWS**.

### 3C Institute

July 2015 – April 2017

*Game Developer*

*Durham, NC*

- Gameplay programmer for web-based **2D simulations** supporting behavioral health ([3cisd.com](http://3cisd.com)).
- Programmed games using **Unity3D** game engine, **C#, Javascript**, and **TypeScript**.
- Architected and wrote parts of our 2D game engine and dev. tools and created **automated tests** to ensure reliability.

### 3C Institute

March 2014 – July 2015

*Senior Web Application Developer*

*Durham, NC*

- Built behavioral health web applications as a **full-stack developer** using MVC with Laravel PHP, **MySQL, ReactJS**, and **SASS**.
- Effectively managed **Agile SCRUM** teams as scrum master using **JIRA** in two-week sprints.

### Digital Branding LLC.

May 2011 – December 2013

*Software Engineer*

*Raleigh, NC*

- Doubled revenue in two years as the lead full-stack web developer of digital marketing start-up using PHP and Javascript.

### I.B.M.

May 2006 – May 2011

*Staff Software Engineer*

*Research Triangle Park,*

*NC*

- Shipped industry leading business service management enterprise software using **Java** and **javascript** as a web developer.
- Automated installation on various Unix operating systems using **Java**.

## EDUCATION

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### Georgia Institute of Technology

May 2018

*MS, Computer Science (3.8/4.0 GPA)*

*Atlanta, GA*

- Specialized in Interactive Intelligence including deep learning, reinforcement learning, **AI for robotics**, and **machine learning**.
- Designed and built **virtual reality** dog training simulation in the **Unity Game Engine** as part of independent study.

## SKILLS & INTERESTS

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- **Programming Languages and Frameworks:** Python, Javascript, TypeScript, PHP, Java, C#, C++, MySQL, React.js, and Laravel.
- **Technical Skills:** Backend Development, full-stack development, APIs, system design, Virtual reality, machine learning, Git, Tensorflow, Keras, 2D and 3D Math, A.I., reinforcement learning, supervised learning, self-driving auto, gameplay programming, simulation engineer, automated testing, 3DS Max, and Blender.
- **Interests:** Traveling, making salsa, watching football, playing The Legend of Zelda: Breath of the Wild, and watching The Office.