

# WILLIAM SHU

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<https://www.hello-william.com> | <https://www.linkedin.com/in/will-shu> | <https://github.com/WillamShu>

## Core Competencies

- Web & WPF Application Development / RESTful API Design
- Proficient with programming algorithm
- Skilled at simplifying complex issues
- Collaborative team player who excels in high-performance teams
- Excellent documentation skills and professional programming style
- Quick Learner

## Education

### University of Wisconsin - Madison

*Madison, WI Sep 2015 - May 2018*

Bachelor of Science in Computer Sciences

Certificate in Applied Mathematics

## Projects

### Personal Website

- Used MVC pattern with ASP.NET Core 2.0, and SQL Server. Enabled basic user login, two factor authentication, email services with SendGrid.
- Published on Microsoft Azure, linked with custom domain and certified with SSL.
- Secured Url: <https://www.hello-william.com>

### Artificial Intelligence Related Programs

- Trained a feedforward neural network to predict the social reach of specific commercial post based on the number of comments, the number of total views, whether the post was a paid promotion, and the type of post.
- AI agent for Mancala Board Game in Java: used minimax search, Alpha-beta pruning, Time management with Iterative-deepening search and heuristic evaluation function.

## Technical Skills

### Programming Skills / Scripting Languages:

- C#, Java, Python, JavaScript, HTML5

### Web Development Frameworks:

- ASP.NET, ASP.NET Core, Node.js, AngularJS, Bootstrap

### Databases:

- PostgreSQL, Microsoft SQL Server

### Cloud Computing Platform:

- Microsoft Azure, Amazon AWS

### Version Control System:

- Git, GitHub

### Project Management Software:

- Unfuddle, Trello

## Professional Experience

### Software Engineer

Nov 2018 – Present

EyeKor, Inc., *Madison, WI*

- Full Stack Development for EdgeSelect using MVVM Light Toolkit with ASP.NET 4.7. Improved auto layer detection function with Dijkstra Algorithm. Redesigned the UI and improved user experience with Telerik WPF. Added new functions as request.
- Participated Restful API development for Excelsior. Developed archive function in API and worker role, and designed a pipeline with Azure Data Factory to perform the quickest archive process.
- Led the whole SDLC of the new internal use software using MVVM pattern. Work closely with QA team and project managers. Actively responded to the requests and gave constructive suggestions. Working on the functionality of automatic pupil detection.

### Full Stack Software Engineer Intern

Feb 2018 – Sep 2018

eBizTie, Inc., *San Francisco, CA*

- Developed a functionality for career search using MVC pattern with NodeJS and AngularJS. Designed Restful API to allow users to search, post, change and delete jobs.
- Developed web crawlers using Python Script and BeautifulSoup in order to update job list. Updated database and Elasticsearch after scraping with pycopg2 and Elasticsearch API.
- Developed a Python Script to index from PostgreSQL and post to Elasticsearch database to do a quick fix when it being accidentally cleared and no available snapshot to use.
- Collaborated with marketing team to update UI and improve the UX.
- Created a QA instance on AWS EC2 to avoid directly deploying to production environment. Built QA database and QA Elasticsearch database for the QA instance.
- Introduced Trello as a project management tool to improve the working efficiency.
- Participated the whole SDLC of site translation using Angular Translate.
- Helped debug the payment methods including Stripe Payment and Citicon Payment.

### Research Assistant

Sep 2017 – May 2018

University of Wisconsin Madison, *Madison, WI*

- Human Computer Interaction Lab with professor Bilge Mutlu.
- Developed 10+ APIs, such as robot movement, person tracking, system dialog and speech recognition using Python.
- Developed a command center platform which integrate all these functions with PyQt5.