# MATTHEW WRIGHT

2B Systems Design Engineering

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📱 289-208-3683

## SKILLS

**Languages**: Python, Java, C/C++, SQL HTML/CSS, JavaScript (Node.js, React)

**Tools:** Amazon Web Services, MySQL MongoDB, Linux/Bash/Git, Eclipse Postman, Swagger, SOAPUI

**Design:** User-Centered Design, Iterative Design, Rapid Prototyping, User Personas

## EDUCATION

**University of Waterloo, 2016-present**
*Candidate for Bachelor of Applied Science in Systems Design Engineering*
Relevant Courses:
- Data Structures and Algorithms
- Human Factors in Design
- Digital Systems

## AWARDS

**Arthur F. Church Award**
$10,000 scholarship for outstanding contribution to the community

**President's Scholarship of Distinction**
$5,000 scholarship awarded to students with a +95% high school average.

**Marpeck Leadership Award**
$810 scholarship for engineers with an aptitude for leadership

## INTERESTS

AI/Machine Learning, NBA, Ping Pong Weightlifting, Pool, Sailing, Dance

## EXPERIENCE

**Data Engineer,** EllisDon, Mississauga, ON                    **May 2017 – Aug 2017**
- Developed pipeline for migrating data from third party APIs into cloud-based data lake and data warehouse using Python, AWS, and MySQL
- Deployed ETL processes using AWS EC2, Lambda, S3, and RDS
- Built machine learning model that predicted employee turnover
- Designed RESTful API for new microservice based architecture
- Collaborated with interdisciplinary team in an Agile development environment

**Software Engineer,** Dematic Limited, Mississauga, ON
**Jan 2017 – April 2017; Sept 2017 – Dec 2017**
- Designed, programmed, and commissioned state of the art materials handling systems used by Fortune 500 clients
- Drafted electrical wiring schematics using AutoCAD electrical
- Developed low-level real-time operating system PLC programs
- Led controls team for two $100,000+ projects, completing both projects on schedule and on budget

**Lifeguard and Swim Instructor,** City of Burlington, Burlington, ON

**Cabin Leader/Lifeguard/Sailing Instructor,** Camp Mini-Yo-We, Port Sydney, ON

**Web Master,** Forest View Church, Oakville, ON

## PROJECTS

**Linear Regression Expectation,** Python, sklearn
- Developed a machine learning algorithm to predict baseball teams' winning percentage
- Performed 6% more accurately than traditional Pythagorean expectation

**The To Do List,** JavaScript
- Built 'To Do list' application using MERN (MongoDB, Express.js, React/Redux, Node.js) stack

**Voting Machine,** Java
- Utilized graphical user interfaces to replicate an electronic voting machine
- Implemented data protection using MD5 and data encryption standard

**Laser Tripwire Security System,** Arduino C
- Applied the finite state machine programming pattern to build a laser triggered security system powered by an Arduino Uno
- Employed hardware interrupts to optimize the speed of the alarm response

**Wikipedia WebCrawler,** Python
- Used BeautifulSoup library and a breadth first search algorithm to find the fastest path using links between two Wikipedia pages

**Knitting Pattern Creator,** Processing
- Object-oriented program that provides a tool for creating knitting patterns

…see more at github.com/mattjgw