



# MICHAEL AH-KIOW

GEOMATICS ENGINEER  
SOFTWARE DEVELOPER  
DAY TRADER/TECHNICAL INVESTOR

## CONTACT

✉ **Email**  
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🌐 **Website**  
www.drivenengineer.ca

in **Linkedin**  
linkedin.com/in/michaelah19

🐙 **Github**  
github.com/micdean19

## EDUCATION

**High School Diploma**  
Robert Thirsk High School  
2013-2016

**B.Sc. Geomatics Engineering**  
University of Calgary, Canada  
2016 - 2021

**M.Eng. Software Engineering**  
University of Calgary, Canada  
2021-2022

## EXPERTISE

- Object Oriented Programming
- Software Dev (Python, C++)
- Front End (CSS3 & HTML5)
- Independent Learner
- MATLAB & Prototyping
- Revision Control (Perforce, GIT)
- Problem Solving & Debugging
- Agile/Scrum Development

## PROFILE

I am a Geomatics and Software Engineer in training who is passionate about making this world a better place. I graduated with a Bachelor of Geomatics Engineering and I am currently in a Master of Software Engineering at the University of Calgary. I have industry experience in software development, research and working on agile teams. Feel free to visit my website at [www.drivenengineer.ca](http://www.drivenengineer.ca)

## PROFESSIONAL EXPERIENCE

### Junior Software Developer Contractor

*SkyIT Services - Subsidiary of GBCS Group I 2020-Present (Part Time)*

SkyIT is a tech company that provides reliable, innovating, and exciting web app services to help the aviation industry overcome modern challenges.

- Research third party systems and technologies in Computer vision and IOT.
- Member of the development team that adhere to scrum principles with Kanban boards, bi-weekly sprints, and continuous improvement principles.

### Research & Development Engineering Intern

*Hexagon - Autonomy & Positioning I 2019-2020*

At Hexagon I have worked on the development of exciting positioning technologies, from exploiting and protecting GNSS signals to:

- High Sensitivity GNSS algorithm testing, which include software development and debugging in C++, revision control using Perforce and working on an agile team with Jira.
- Development of an autonomous Car using Robotic Operating Systems (ROS), C++, Linux (Ubuntu), Python, Perforce and other Internal tools.
- Analysis, Visualization, and manipulation of massive GNSS & Inertial positioning datasets to better improve positioning algorithms.

### Undergraduate Research Assistant

*University of Calgary I 2018*

My research consisted of applying 3D time of flight sensors to measure antler growth of reindeers at Spy Hill Campus for medical applications.

- Design and Implement a test setup using Time of Flight Cameras (Lidar technology) to monitor the growth and dimensions of Antler.
- Implemented various analysis and test scripts in C++, MATLAB and worked with industrial software development kits (SDK).

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## CERTIFICATIONS

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- Udemy: Modern HTML & CSS  
By Brad Traversy (Udemy)
- SOLID Principles: Software  
Architecture & Design  
By Sujith George (Udemy)
- Machine Learning A to Z  
By Kirill Eremenko (Udemy)
- Python, SQL & Tableau  
By 365 Careers (Udemy)
- Advanced Python  
by Armendariz (Udemy)

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## REFERENCES

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### Dr. Ivan Detchev

Engineering Professor  
PhD, MSc, Geomatics Engineering  
i.detchev@ucalgary.ca

### Darrell Anklovitch

Principal Engineer - Supervisor  
Hexagon Autonomy & Positioning  
Darrell.Anklovitch@hexagon.com

### Sean Blair

Volunteering Supervisor  
sean.blair@shaw.ca

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## PHILANTHROPY

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Children Believe  
Tom Baker Cancer Center  
World Food Programme  
UNICEF  
The Arthritis Society  
The Crohn's & Colitis Society  
Plan International Canada

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## VOLUNTEERISM

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St Peter Roman Catholic Church  
Drop-In Center  
The Mustard Seed  
Feed the Hungry  
Robert Thirsk High School  
Geomatics Engineering Student Society

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## EXTRACURRICULAR ACTIVITIES

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### Vice President Academic

*Geomatics Engineering Student Society I 2018 - 2019*

I served as a liaison between the faculty, the private sector, and the society. My job consisted of creating research positions, host career fair and research mixers.

### Engineering Student Team Member

*FUSE Collective Design Club I 2016 - 2017*

FUSE collective is an engineering and design club that creates, designs, and participates in real initiatives with real-world impact. I was Involved in designing a shelter for Twin Views Community Garden

### Math 30-1 Tutor

*Robert Thirsk High School I 2015 - 2016*

I offered peer tutoring and mentorship for students struggling in math class. I was also involved in grading, attendance and in organizing study sessions.

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## HONORS & ACHIEVEMENTS

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2016: President's Admission Scholarship. (Value: \$4,000)

*Entrance scholarship to the engineering program for exceptional academic merit.*

2016: Seymour Schulich Academic Excellence award. (Value: \$37,200)

*Full ride scholarship to the engineering program for academic excellence.*

2016: Alexander Rutherford Scholarship. (Value: \$2500)

2017: Geomatics Engineering "25th Anniversary" Award. (Value: \$2,900)

2017, 2018: Jason Lang Scholarship. (Value: \$1000)

2018: Schulich Undergraduate Student Research Award. (Value: \$6000)

2019: Sean Studer Memorial Scholarship (Value: \$1500)

2020: Finalists/Bronze at the National Geomatics Competition (Value: \$300)

*Represented the University of Calgary a national engineering competition*

2020: UCBeyond Scholarship 2020 (Value: \$5000):

*Awarded for living above and beyond the boundaries of a chronic illness based on academic excellence, community involvement & personal ambition.*

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## PROJECTS

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### Geolocation Mapping Tool

*Python CLI project that plots Trajectory and errors of positioning logs.*

### Lidar reconstruction of reindeer's antler for Biomedical research

*Utilized a Time of flight camera and their C++ API to produce a 3D lidar image of antlers in real time.*

### Website Portfolio (<https://www.drivenengineer.ca>)

*A fully responsive website written in CSS3 and HTML5.*

### Building Modelling by Mobile Phone Photogrammetry

*Engineering Capstone supervised by Dr Lichti. (Currently in Progress)*