MICHAEL AH-KIOW

GEOMATICS ENGINEER
SOFTWARE DEVELOPER
DAY TRADER/TECHNICAL INVESTOR

CONTACT

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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

- Front End Development
- MATLAB & Prototyping
- Agile/Scrum Environment
- HTML5/CSS3/JavaScript (ES6)
- Revision Control (Perforce, GIT)
- Deep Learning in Python
- Statistics & Data Science
- Object Oriented Programming with Solid Principles (Python)

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'm pursuing my masters in order to specialize in deep learning for autonomous driving and for stock market prediction using various indicators. You can learn more about me at https://www.drivenengineer.ca.

PROFESSIONAL EXPERIENCE

Junior Software Developer Contractor
SkyIT Services - Subsidiary of GBCS Group I 2020

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

- Researched third party systems in Computer vision and Internet of things.
- Adhered to scrum principles with Kanban boards, bi-weekly sprints, and continuous improvement principles with the development team.

Research & Development Engineering Intern
Hexagon – Autonomy & Positioning I 2019-2020

Hexagon is a global leader in providing solutions for accurate positioning, navigation, and autonomy. I was involved in exciting projects such as:

- 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.

- Designed and Implemented 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).

CERTIFICATIONS

- 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)

REFERENCES

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

PHILANTHROPY

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

VOLUNTEERISM

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

EXTRACURRICULAR ACTIVITIES

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.

HONORS & ACHIEVEMENTS

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.

PROJECTS

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.

Front End Portfolio (DrivenEngineer.ca).
A fully responsive website written in CSS3 and HTML5.

Full stack development for Geospatial Analysis of Traffic in Calgary
A geospatial mapping web application built with a restful API and JavaScript to model the correlation between traffic cameras and crashes.

Accessible 3D Reconstruction by Smart Phone Photogrammetry.
Engineering Capstone supervised by Dr Lichti which aims to create 3D models using simple images from your smart phone.