MICHAEL AH

GEOMATICS ENGINEER
SOFTWARE DEVELOPER
INVESTOR

CONTACT

Phone
+1 587-437-4545

Email
MichaelDeanah19@gmail.com

Website
www.drivenengineer.ca

Address
545 Citadel Way NW
Calgary AB, Canada

EDUCATION

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

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

M.Sc. Computer Science
University of Dalhousie, Canada
2022-2023

EXPERTISE

- Object Oriented Programming
- Software Dev (Python, C++)
- Front End (CSS3 & HTML5)
- Bootstrap Framework
- MATLAB & Prototyping
- Revision Control (Perforce, GIT)
- Problem Solving
- Time Management

PROFILE

I am a 4th year engineering student with a strong passion for software development. I am currently employed at Hexagon Positioning Intelligence as an R&D Engineering Intern with various accomplishments and awards under my name. I have industry experience in software development, research and working on agile teams. I have a strong foundation in MATLAB, Python & C++, capable of OOP, Polymorphism, and integrating API's into my own programs

PROFESSIONAL EXPERIENCE

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

Hexagon focuses on the development of exciting positioning technologies, from exploiting and protecting GNSS signals to other methods of positioning. At Hexagon, I have been 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 in an agile team with Jira.
- Development of a Spoofing & Jamming Interference graphical user interface using Python, PyCharm and other internal tools.
- Development of a Self-driving Car which involved using Robotic Operating Systems (ROS), C++, Linux (Ubuntu), Python, Perforce and Other Internal tools.
- Analysis, Visualization and manipulation of massive GNSS & Inertial datasets (such as drones, self-driving cars, static positioning and high multipath positioning) 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) to monitor the growth and dimensions of Antler.
- Processed point clouds using Cloud Compare for point picking, registration and visualization.
- Implemented various analysis and test scripts in C++, MATLAB and worked with industrial software development kits (SDK).

ONLINE COURSES

- Udemy: Modern HTML & CSS
  By Brad Traversy
- Udemy: Introduction to CPSC
  By Kurt Anderson
- Udemy: Python 'Mega' Course
  By Ardit Sulce
- Udemy: Python, SQL, Tableau
  By 365 Careers
- Udemy: Advanced Python
  by Armendariz

PROJECTS

Geolocation Mapping Tool
Python CLI project that plots Trajectory and standard deviations of positioning logs.

Website Portfolio
A fully responsive website written in CSS3 and HTML5.

Placeholder
A fully responsive website written in CSS3 and HTML5.

SOCIAL

Github
github.com/micdean19

Facebook
facebook/MicDean19

Linkedin
linkedin.com/in/michaelah19

VOLUNTEERISM

St Peter Roman Catholic Church

Drop-In Center

The Mustard Seed

Feed the Hungry

Robert Thirsk High School (Math Tutor)

Placeholder

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.

- Collaborated with 4 professors to create 6 research positions in photogrammetry and positioning software development.
- Interviewed 12 applicants and filtered more than hundreds of resumes
- Involved in the planning of academic events and department meetings

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.

- Involved in designing a shelter for Twin Views Community Garden
- Drafted 3 design concepts and collaborated with locals for integration.

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 merit.

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 at the National Geomatics Competition (300$)
Represented the University of Calgary and 3rd Place finish.

2020: Placeholder

REFERENCES

Dr. Ivan Detchev
Engineering Professor
PhD, MSc, Geomatics Engineering
Mail: i.detchev@ucalgary.ca

Jennifer Busser
Product Manager – Correction Services
Hexagon Autonomy & Positioning
Jennifer.Busser@hexagon.com