

# Julian Mentasti Meza

(778)-882-3453

julian@mentasti.net

## Education

*Bachelors of Science* - Combined Major in Computer Science and Statistics  
University of British Columbia, Vancouver, CA  
International Baccalaureate Bilingual Diploma  
Greengates School, Mexico City, MX

Expected: May 2021  
(GPA: 81/100)  
August 2015 – June 2017

## Skills

*Programming Languages:* Java, JavaScript, Golang, Python, C++ and Racket  
*Markup Languages:* XML, HTML 5 and CSS  
*Database Management Systems:* MySQL, PostgreSQL and SQLite  
*Operating Systems:* Linux/Unix systems (ArchLinux, Ubuntu, EdgeOS, CentOS) and Windows  
*Frameworks and Libraries:* Django, Jupyter, Pandas, Git, OpenCV3, gRPC, XML-RPC and L<sup>A</sup>T<sub>E</sub>X  
*Languages:* Full fluency in English and Spanish  
github: <https://github.com/Julian-Mentasti>

## Experience

**UBC Orbit - Satellite Design Team**— Vancouver, CA

- *Payload Developer and Co-Captain*

January 2018 – Present

Worked to deploy a remote sensing satellite capable of identifying wildfires and forest loss by using machine learning models for the Canadian Satellite Design Challenge.

- Deployed a linear deblurring algorithm using the Lucy-Richardson algorithm.
- Created a Forrest fire identifier by inverting spectral bands and using haar cascades.
- Created a system status service to monitor Payload's computing system.

Currently, designing a new CubeSat that is capable of taking a picture of earth and sending it back to any ham radio operator, as well as collaborating with teams from Simon Fraser University and University of Victoria to build OCRAASAT, a satellite capable of calibrating ground observatories such as CHIME. (<https://www.ubcorbit.com>)

**CloudPBX inc**— Vancouver, CA

- *Software Developer intern*

June 2018 – September 2018

Worked to enable their network research team by building tools that would improve and increase their data collection methods.

- Deployed a VPN tunnel that can connect various router models, network structures and bridge the flow of large amounts of data.
- Designed a web UI that allowed stakeholders to monitor, test and view the data from their routers.
- Implemented an auto installer script that setups the company's software on routers across different architectures and connects each device to the UI and the VPN network.
- Built a remote procedure call service monitor that runs on a router, acting as a watchdog for the firm's custom software and can orchestrate each piece of software accordingly.

**University of British Columbia - Computer Science Department**— Vancouver, CA

- *Undergraduate Teaching Assistant*

September 2018 – Present

Teaching Assistant for CPSC 110 - Computation, Programs and Programming. A first-year introductory programming course designed by Gregor Kiczales using Racket.

## Coursework (\* will be completed by May 2018)

*CPSC 425 - Computer Vision	CPSC 221 - Algorithms and Data Structures
*CPSC 320 - Intermediate Algorithm Design and Analysis	CPSC 210 - Software Construction
*CPSC 314 - Computer Graphics	CPSC 121 - Models of Computation
*CPSC 313 - Computer Hardware and Operating Systems	CPSC 110 - Computation, Programs and Programming
*STAT 302 - Probability	*CPSC 213 - Introduction to Computer Systems
Math 221 - Matrix Algebra	*Math 342 - Algebra and Coding Theory

## Projects

PIMS BC Data Science Workshop

- *Individual*

I took part in a one week project, where as part of a team we would attempt to solve a problem for a firm using data science. I was part of the CloudPBX team, where we ended up cleaning, analyzing and displaying large sets of data. Our focus was centered around VOIP: how it worked and how we could better contextualize our data to suit the firms needs.

- Created a new metric that was more sensitive to disturbances in a phone call.
- Discovered best and worst performing ISPs
- Grouped calls to find the highest caller density

<http://workshop.bcddata.ca/2018/post/5-cloudpbx-project/>

## Activities

UBC Quiz bowl — VP of Content (Present)

UBC Scientific Software Seminar — Attendee (Present)

## Awards

Awarded Dean's Honour List - 2018 UBC

Creativity, Activity Service Award - 2017 Greengates

IB Computer Science excellence Award - 2017 Greengates

IB Business and Management excellence Award - 2017 Greengates