

# 2019

University of Washington Computer Science Summer Program 2019

5880

2019 7 25 8 17

2019 4 30

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# 2019

## |Basic Information

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OM26T-UW-CSP

## |Program Introduction

This is a three-week intensive customized content program regarding Electrical & Computer Science Engineering for undergraduate students at Chinese universities who are selected by Xiangfei Education Group. Students in this program will learn about current technological developments in the field of Electrical & Computer Science Engineering through five different related content modules. Students who complete this 75 hour specialized content program will be able to present confidently about their learning in English by the end of the program. Students may apply their learning to future studies, professional work, and personal investments..

## |University Introduction

	1861		
		USNEWS	2018
56	18	UW	

## |Program Key Point

## |Program Period

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2019 7 25 2019 8 17

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## |Program Outline

Topics in Electrical & Computer Science Engineering Lecture Series (60 UW class hours)

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60 :

1. Image Processing
2. Data Mining
3. Cloud Computing
4. Big Data
5. Mobile Operating Systems

12

( ) Presentation Skills for STEM (15 UW class hours)

1. 15
2. STEM Science, Technology, Engineering and Mathematics
- 3.
- 4.

## | Program Professor

### Yun-Hsuan (Melody) Su Image Processing

My name is Yun-Hsuan Su, a 2nd year Ph.D. student working with Prof. Blake Hannaford in the Biorobotics Lab at the University of Washington. I am highly interested in exploring methods to improve the robotic teleoperation experience by integrating computer vision and AI algorithms to provide vision-based haptic feedback.

In particular, my research in UW focuses on developing a vision-based force estimation algorithm for the Raven-II surgical robot system, which combines robot kinematics information with vision to achieve accurate and efficient surgical instrument segmentation result, then by 3D reconstruction of the surgical scene, the applied force can be estimated based on tissue deformation due to tool-tissue contact.

### Henry Tremblay Data Mining

I started out my career as a data engineer in Zappos, at a warehouse that contained over 10 million pairs of shoes. Later, Amazon acquired Zappos, and the headquarters asked me to come to Seattle to help with the expansion of Amazon's Prime Now program. Amazon has some of the biggest databases in the world, and I used these databases to create models to determine where to put warehouses.

After I left Amazon, I worked with The Boston Consulting Group, helping Starbucks develop their rewards programs. I assisted Data Scientists by creating pipelines, through which terabytes of data flowed.

When I left The Boston Consulting Group, I worked as a consultant for Azure products, helping design the architecture for big data systems. Currently, I work at Best Buy, managing the data for an exciting new ad program. Because of my experience at three different companies, I have worked with the 3 major cloud platforms, Google Cloud Platform, Amazon Web Services, and Microsoft Azure.

### Suneetha Dhulipalla (Big Data)

Growth-minded Engineering leader known for passion and customer obsession. Worked in Microsoft for 20 years and experienced in all aspects of engineering product development including strategic planning, agile processes, building and motivating high performance teams.

Excellent communication, negotiation and leadership skills. Actively mentor many women at Microsoft to reach their full potential.

Specialties: Big Data, Data driven development, Software development, Software testing, Reliability, Performance and Scale development & testing, Monitoring & Analytics, Leadership.

### Sudheer Dhulipalla (Big Data)

Experienced Software Engineer, Group Manager and Director with 25 years of industry experience (22 years at Microsoft)

Expertise in building large scale Windows Enterprise servers (Windows Server, Windows Networking Services, IPv6, TCP/IP, Direct Access, Systems Management Services) and Azure Cloud Services (Azure Web Sites, Azure Service Bus (Messaging Services), Azure Workflow Services, Azure Hadoop Services (HDINSIGHT), Azure Data Lake Big Data Services and so on)

Expertise in Windows Operating Systems, Windows Networking, Systems Management, .NET technologies, Distributed Systems, Windows Azure cloud services and Big Data technologies

Expertise in managing and leading large teams to successful delivery of software products and cloud services

### Paul Wu (Cloud Computing)

I currently work at AT&T as a development lead and principal application developer in Wireless Network Traffic Analytics with Big Data technologies such as Spark and Hadoop. I have taught computer science (information technology) and mathematics for nearly 15 years. The subjects I have covered include but not limited to Java, Python, Web Development and Cloud Computing, etc.

I hold a Ph. D in mathematics and a M.Sc. in computer science from Dalhousie University, Canada. I worked at the Department of Computer Science & Mathematics, Tianjin University of Technology after I graduated from Xian Jiaotong University, PRC.

I relish the challenge of solving complicated problems with software engineering and applied mathematics. I am truly passionate about working with various learners and help them succeed in their studies. In my spare time, I enjoy gardening, swimming, and walking

### Brenden West (Mobile OS Development)

Software engineering manager with 15+ years experience delivering high-profile web and mobile applications. Versed in all phases of the software development lifecycle.

- 4+ years managing direct reports and vendors

- 7+ years leading cross-functional engineering teams with 12+ staff

- 5+ years professional services consulting

- 6+ years native iOS / Android development

- 6+ years statistical consulting, analytics & data science

- 10+ years full-stack web development

- full-stack web development

## |ProgramItinerary

Date	Day	Morning Activity	Afternoon Activity
7/25	THU	Students arrive	
7/26	FRI	Orientation&Campus Tour	Pike Place&FIUTS Friday Activity
7/27	SAT	Free	
7/28	SUN	Boeing Factory optional	50
7/29	MON	CSE Lecture: Data Mining	CSE Lecture: Data Mining Presentation skills for STEM
7/30	TUE	CSE Lecture: Data Mining	CSE Lecture: Data Mining Presentation skills for STEM
7/31	WED	CSE Lecture:Data Mining	CSE Lecture: Data Mining Presentation skills for STEM
8/1	THU	CSE Lecture: Image Processing	CSE Lecture: Image Processing Presentation skills for STEM
8/2	FRI	CSE Lecture: Image Processing	CSE Lecture: Image Processing Presentation skills for STEM FIUTS Friday Activity
8/3	SAT	Free	
8/4	SUN	Outlet(optional)	30
8/5	MON	CSE Lecture: Image Processing	CSE Lecture: Image Processing Presentation skills for STEM
8/6	TUE	CSE Lecture: Cloud Computing	CSE Lecture: Cloud Computing Presentation skills for STEM
8/7	WED	CSE Lecture: Cloud Computing	CSE Lecture: Cloud Computing Presentation skills for STEM
8/8	THU	CSE Lecture: Cloud Computing	CSE Lecture: Cloud Computing Presentation skills for STEM
8/9	FRI	CSE Lecture: Big Data	CSE Lecture: Big Data Presentation skills for STEM
8/10	SAT	Free	
8/11	SUN	Mount Rainier(optional)	30
8/12	MON	CSE Lecture: Big Data	CSE Lecture: Big Data Presentation skills for STEM
8/13	TUE	CSE Lecture: Big Data	CSE Lecture: Big Data Presentation skills for STEM
8/14	WED	CSE Lecture: Mobile Operating Systems	CSE Lecture: Mobile Operating Systems Presentation skills for STEM
8/15	THU	CSE Lecture: Mobile Operating Systems	CSE Lecture: Mobile Operating Systems Presentation skills for STEM
8/16	FRI	CSE Lecture: Mobile Operating Systems	CSE Lecture: Mobile Operating Systems Presentation skills for STEM Closing Ceremony
8/17	SAT	Depart	

## | Campus Life

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2. Husky Union Building

Husky Union Building

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UW Logo

T-shirt

5. University Village

H&M GAP

6. UW Tower

### |ProgramFee

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OM26T-UW-CSP-1

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OM26T-UW-CSP-2

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### |ProgramRequirement

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### |MaterialList

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### |Participation Process

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### |SignUp

<http://apply.xf-world.org/>

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